

NACOmatic

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INSTRUMENT APPROACH PROCEDURE CHARTS

A IFR ALTERNATE AIRPORT MINIMUMS

Standard alternate minimums for non precision approaches are 800-2 (NDB, VOR, LOC, TACAN, LDA, VORTAC, VOR/DME, ASR or WAAS LNAV); for precision approaches 600-2 (ILS or PAR). Airports within this geographical area that require alternate minimums other than standard or alternate minimums with restrictions are listed below. NA - means alternate minimums are not authorized due to unmonitored facility or absence of weather reporting service. Civil pilots see FAR 91. IFR Alternate Airport Minimums: Ceiling and Visibility Minimums not applicable to USA/USN/USAF. Pilots must review the IFR Alternate Airport Minimums Notes for alternate airfield suitability.

NAME ALTERNATE MINIMUMS
ABERDEEN PROVING GROUND, MD

PHILLIPS AAF (KAPG) **NDB Rwy 22**
VOR Rwy 22
VOR/DME Rwy 22
RNAV (GPS) Rwy 22

NA when control tower closed.

ABINGDON, VA

VIRGINIA HIGHLANDS **LOC Rwy 24**
RNAV (GPS) Rwy 6
RNAV (GPS) Rwy 24
VOR/DME-B

NA when local weather not available.

Category C, 800-2½; Category D, 800-2½.

ANNAPOLIS, MD

LEE **RNAV (GPS)-A**

NA when local weather not available.

BALTIMORE, MD

BALTIMORE-WASHINGTON INTL
 THURGOOD MARSHALL **ILS or LOC Rwy 15L¹**
ILS or LOC Rwy 28²
VOR Rwy 10³

¹ILS, LOC, Categories A,B, 900-2; Category C, 900-2½; Category D, 900-2¾.

²ILS, Categories A,B,C, 700-2; Category D 700-2¾; LOC, Category D, 800-2¾.

³Categories A,B,1100-2; Category C,D 1100-3.

MARTIN STATE **ILS or LOC Rwy 33¹²³**
LOC Rwy 15²
VOR/DME or TACAN Z Rwy 15⁴

¹ILS, Category D, 700-2.

²NA when control tower closed.

³NA when local weather not available.

⁴Categories A,B, 900-2; Category C, 900-2½; Category D 900-2¾.

BLACKSBURG, VA

VIRGINIA TECH/MONTGOMERY
 EXECUTIVE **RNAV (GPS) Rwy 12**
RNAV (GPS) Rwy 30

NA when local weather not available.

NAME ALTERNATE MINIMUMS
CHARLOTTESVILLE, VA

CHARLOTTESVILLE-
 ALBEMARLE **ILS or LOC Rwy 3¹²**
RNAV (GPS) Rwy 3³⁴
RNAV (GPS) Y Rwy 21³⁵
RNAV (GPS) Z Rwy 21³⁴

¹NA when control tower closed.

²ILS, Categories A,B, 800-2; Category C, 800-2½; Category D, 1000-3. LOC, Category C, 800-2¾; Category D, 1000-3.

³NA when local weather not available.

⁴Category D, 1000-3.

⁵Category C, 800-2¾; Category D, 1000-3.

COLLEGE PARK, MD

COLLEGE PARK **RNAV (GPS) Rwy 15**
 NA when local weather not available.

CULPEPER, VA

CULPEPER RGNL **LOC Rwy 4¹**
RNAV (GPS) Rwy 4²
RNAV (GPS) Rwy 22²
VOR-A²

¹NA when FBO closed.

²NA when local weather not available.

DANVILLE, VA

DANVILLE RGNL **VOR Rwy 20**
 Category C, 800-2¾; Category D, 800-2½.

DUBLIN, VA

NEW RIVER VALLEY **VOR or GPS-A**
 Category D, 800-2¾.

EASTON, MD

EASTON/
 NEWNAM FIELD **ILS or LOC/DME Rwy 4¹**
RNAV (GPS) Rwy 4
RNAV (GPS) Rwy 15
RNAV (GPS) Rwy 22
RNAV (GPS) Rwy 33

NA when local weather not available.

¹ILS, LOC, NA when control tower closed.

ALTERNATE MINS

NAME ALTERNATE MINIMUMS
EMPORIA, VA
EMPORIA-
GREENSVILLE RGNL **RNAV (GPS) Rwy 15**
NA when local weather not available.

FELKERA AF (KFAF)
FORT EUSTIS, VA ORIG 08297
NDB Rwy 14
COPTER NDB Rwy 14
RNAV (GPS) Rwy 14
COPTER RNAV (GPS) Rwy 14
NA when control tower closed.

FREDERICK, MD
FREDERICK MUNI **RNAV (GPS) Rwy 5¹²**
RNAV (GPS) Y Rwy 23¹
RNAV (GPS) Z Rwy 23³

- ¹Category D, 800-2½.
²NA when local weather not available.
³Categories A,B,C,D, 800-2½.

GAITHERSBURG, MD
MONTGOMERY COUNTY
AIRPARK **NDB Rwy 14**
Categories A, B, 900-2; Category C, 900-2½;
Category D, 900-2¾.

GALAX/HILLSVILLE, VA
TWIN COUNTY **RNAV (GPS) Rwy 1**
RNAV (GPS) Rwy 19
NA when local weather not available.

GEORGETOWN, DE
SUSSEX COUNTY **RNAV (GPS) Rwy 4**
RNAV (GPS) Rwy 22
NA when local weather not available.

HAGERSTOWN, MD
HAGERSTOWN RGNL-RICHARD A.
HENSON FIELD **ILS or LOC Rwy 9¹**
ILS or LOC Rwy 27¹
RNAV (GPS) Rwy 9
RNAV (GPS) Rwy 27
VOR Rwy 9

- NA when local weather not available.
¹NA when control tower closed.

HOT SPRINGS, VA
INGALLS FIELD **RNAV (GPS) Rwy 7**
NA when local weather not available.
Categories, A, B, 1000-2; Category C, 1000-
2¾, Category D, 1000-3.

LEESBURG, VA
LEESBURG EXECUTIVE .. **RNAV (GPS) Rwy 17**
LPV, Category D, 700-2.

NAME ALTERNATE MINIMUMS
LEONARDTOWN, MD
ST. MARY'S COUNTY
RGNL **RNAV (GPS) Rwy 11**
RNAV (GPS) Rwy 29
NA when local weather not available.

LOUISA, VA
LOUISA COUNTY/
FREEMAN FIELD **RNAV (GPS) Rwy 27**
NA when local weather not available.

LYNCHBURG, VA
LYNCHBURG RGNL/PRESTON GLENN
FIELD **ILS or LOC Rwy 4¹²**
RNAV (GPS) Rwy 4³
RNAV (GPS) Rwy 22³
VOR/DME Rwy 22⁴
VOR Rwy 4³

- ¹ILS, LOC, NA when control tower closed.
²ILS, Categories A,B, 800-2; Category C, 900-
2½, Category D, 900-2¾. LOC, Category
C, 900-2½, Category D, 900-2¾.
³Category C, 900-2½; Category D, 900-2¾.
⁴Categories A,B, 900-2; Category C, 900-2½,
Category D, 900-2¾.

MANASSAS, VA
MANASSAS RGNL/HARRY P DAVIS
FIELD **ILS or LOC Rwy 16L, 700-2**
RNAV (GPS) Rwy 16L
NA when control tower closed.

MARION/WYTHEVILLE, VA
MOUNTAIN EMPIRE **RNAV (GPS) Rwy 26**
NA when local weather not available.
Category C, 800-2¾.

MARTINSVILLE, VA
BLUE RIDGE **RNAV (GPS) Rwy 30**
NA when local weather not available.
Categories A,B, 1000-2; Categories C,D,
1000-3.

MELFA, VA
ACCOMACK COUNTY **RNAV (GPS) Rwy 3**
RNAV (GPS) Rwy 21
NA when local weather not available.

MIDDLETOWN, DE
SUMMIT **RNAV (GPS) Rwy 17**
RNAV (GPS) Rwy 35
NA when local weather not available.

WASHINGTON, DC

WASHINGTON

DULLES INTL ILS or LOC/DME Rwy 1C¹
 ILS or LOC/DME Rwy 1L¹
 ILS or LOC/DME Rwy 12¹
 ILS or LOC/DME Rwy 19C¹
 ILS or LOC/DME Rwy 19R¹
 ILS or LOC Rwy 1R¹
 ILS or LOC Rwy 19L¹
 RNAV (GPS) Y Rwy 19R²

¹ILS, Categories A, B, C, D, 700-2.²Category D, 800-2¼.

RONALD REAGAN

WASHINGTON NATIONAL ILS Rwy 1¹
 LDA/DME Rwy 19²
 RNAV (GPS) RWY 33³
ROSSLYN LDA Rwy 19, 1100-3
 VOR/DME or GPS Rwy 15⁴
 VOR/DME or GPS Rwy 19⁵
 VOR Rwy 1²

¹ILS, Categories A, B, C, 700-2; Category D, 700-2¼. LOC, Category D, 800-2¼.²Category D, 800-2¼.³Categories A, B, C, D, 800-2½.⁴Categories A, B, 1000-2; Category C, 1000-2¾; Category D, 1000-3.⁵Categories A, B, 1000-2; Categories C, D, 1000-3.

WEST POINT, VA

MIDDLE

PENINSULA RGNL RNAV (GPS) Rwy 10
 VOR-A

NA when local weather not available.

WILMINGTON, DE

NEW CASTLE ILS or LOC Rwy 1¹²
 RNAV (GPS) Rwy 1²
 RNAV (GPS) Rwy 9²
 RNAV (GPS) Rwy 19²
 RNAV (GPS) Rwy 27²
 VOR Rwy 1²³
 VOR Rwy 27³

¹NA when control tower closed.²NA when local weather not available.³Category D, 800-2¼.

WINCHESTER, VA

WINCHESTER RGNL RNAV (GPS) Rwy 14
 RNAV (GPS) Rwy 32
 VOR/DME-A

NA when local weather not available.

WISE, VA

LONESOME PINE RNAV (GPS) Rwy 6¹²
 RNAV (GPS) Rwy 24³

¹NA when local weather not available.²Category D, 800-2¼.³Category C, 800-2¼; Category D, 900-2¾.

INSTRUMENT APPROACH PROCEDURE CHARTS

IFR TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude , and/or airports that have civil IFR take-off minimums other than standard, are listed below. Take-off Minimums and Departure Procedures apply to all runways unless otherwise specified. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are referred to as Obstacle Departure Procedures (ODPs) and are described below in text, or published separately as a graphic procedure. If the (Obstacle) DP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or a separate Departure Procedure volume (military), as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not assigned a SID or radar vector by ATC, an ODP may be flown without ATC clearance to ensure obstacle clearance.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are referred to as "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: Title 14 Code of Federal Regulations Part 91 prescribes standard take-off rules and establishes take-off minimums for certain operators as follows: (1) Aircraft having two engines or less - one statute mile. (2) Aircraft having more than two engines - one-half statute mile. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) take-off minima are published below. For military take-off minima, refer to appropriate service directives.

NAME	TAKE-OFF MINIMUMS	NAME	TAKE-OFF MINIMUMS
ABINGDON, VA		ANNAPOLIS, MD	
VIRGINIA HIGHLANDS		LEE	
TAKE-OFF MINIMUMS: Rwys 6, 24 , 300-1.		TAKE-OFF MINIMUMS: Rwy 30 , 300-1 or std. with a min. climb of 410' per NM to 400.	
DEPARTURE PROCEDURE: Climb straight ahead to 5000 when departing NE, or 4000 when departing SW, before proceeding on course.		DEPARTURE PROCEDURE: Rwy 12 , climb runway heading to 700 before proceeding on course.	
		Rwy 30 , climb runway heading to 1000 before proceeding right on course. Climb runway heading to 700 before proceeding left on course.	
ANDREWS AFB/NAF (KADW)		NOTE: Rwy 12 , cross departure end of runway at or above 35' AGL/66' MSL. Rwy 30 , trees, 1433' from departure end of runway, 85' left of centerline, 100' AGL/139' MSL. Cross departure end of runway at or above 35' AGL/66' MSL.	
CAMP SPRINGS, MD. 09127			
TAKE-OFF OBSTACLES: Rwy 1L , trees 2972' to 3085' from DER, 765' to 906' right of centerline, 93' AGL/355' MSL. Rwy 1R , trees 1512' from DER, 856' right of centerline, 74' AGL/336' MSL; trees 2254' from DER, 645' left of centerline, 93' AGL/355' MSL; trees 2629' from DER, 1095' left of centerline, 93' AGL/355' MSL; trees 2882' from DER, 364' left of centerline, 104' AGL/362' MSL. Rwy 19L , terrain 267' from DER, 580' left of centerline, 261' MSL; trees 2650' to 2874' from DER, 946' to 1113' right of centerline, 91' AGL/334' MSL.			
Rwy 19R , trees 2650' to 2873' from DER, 887' to 1054' left of centerline, 91' AGL/334' MSL; tower 4630' from DER, 1664' right of centerline, 108' AGL/377' MSL.			

BALTIMORE, MD**BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL**

TAKE-OFF MINIMUMS: **Rwy 4**, 300-1½ or std. w/ min. climb of 210' per NM to 500.

DEPARTURE PROCEDURE: **Rwy 4**, climb heading 044° to 800 before proceeding on course. **Rwy 28**, climb heading 285° to 900 before proceeding on course. **Rwy 33L**, climb heading 320° to 2000 before proceeding on course. **Rwy 33R**, climb heading 005° to 1900 before proceeding on course.

NOTE: **Rwy 4**, rod on lighted pole 1921' from departure end of runway, 329' right of centerline, 58' AGL/197' MSL. Light on pole 2177' from departure end of runway, 294' left of centerline, 58' AGL/197' MSL. Light on pole 1755' from departure end of runway, 482' right of centerline, 47' AGL/186' MSL. Tree 2370' from departure end of runway, 481' right of centerline, 60' AGL/199' MSL. Tank 6635' from departure end of runway, 2265' right of centerline, 122' AGL/316' MSL. Tank 7534' from departure end of runway, 2274' left of centerline, 173' AGL/338' MSL. **Rwy 10**, building 52' from departure end of runway, 319' left of centerline, 13' AGL/133' MSL. **Rwy 15L**, multiple trees beginning 648' from departure end of runway, 617' left of centerline, up to 68' AGL/167' MSL. Light on pole 921' from departure end of runway, 618' left of centerline, 62' AGL/161' MSL. **Rwy 15R**, multiple trees beginning 1144' from departure end of runway, 740' right of centerline, up to 53' AGL/172' MSL. **Rwy 22**, terrain beginning 111' from departure end of runway, 29' right of centerline, up to 171' AGL. Terrain 365' from departure end of runway, 137' left of centerline, 158' MSL. **Rwy 28**, tree 1392' from departure end of runway, 736' left of centerline, 77' AGL/176' MSL. **Rwy 33L**, building 4693' from departure end of runway, 874' right of centerline, 127' AGL/266' MSL. Tree 2250' from departure end of runway, 843' right of centerline, 66' AGL/205' MSL. Microwave antenna on building, 4725' from departure end of runway, 907' right of centerline, 126' AGL/265' MSL. Fence 203' from departure end of runway, 517' right of centerline, 9' AGL/140' MSL. **Rwy 33R**, numerous trees beginning 2925' from departure end of runway, 321' left of centerline, up to 70' AGL/289' MSL. Numerous trees beginning 975' from departure end of runway, 116' right of centerline, up to 63' AGL/262' MSL. Light on pole 2384' from departure end of runway, 837' right of centerline, 55' AGL/254' MSL. Building 998' from departure end of runway, 654' left of centerline, 24' AGL/183' MSL. Light on pole 3869' from departure end of runway, 603' left of centerline, 72' AGL/251' MSL. Light on pole 2736' from departure end of runway, 247' right of centerline, 17' AGL/216' MSL. Pole 3781' from departure end of runway, 370' right of centerline, 40' AGL/242' MSL. Signal 2453' from departure end of runway, 904' left of centerline, 45' AGL/204' MSL.

BALTIMORE, MD (CON'T)**MARTIN STATE**

TAKE-OFF MINIMUMS: **Rwy 15**, 800-2 or std. with a min. climb of 300' per NM to 1000. **Rwy 33**, 1300-2 or std. with a min. climb of 340' per NM to 1700'.

DEPARTURE PROCEDURE: **Rwy 15**, climb runway heading to 1000 before proceeding on course; or when directed by ATC, climbing right turn heading 190° to 1000 before proceeding on course.

NOTE: **Rwy 15**, trees 1960' from departure end of runway 684' left of centerline, 78' AGL/88' MSL, trees 3395' from departure end of runway, 585' left of centerline, 92' AGL/102' MSL. **Rwy 33**, pole 1553' from departure end of runway, across centerline, 68' AGL/90' MSL. Trees 2342' from departure end of runway, across centerline 86' AGL/108' MSL.

BLACKSBURG, VA**VIRGINIA TECH/MONTGOMERY EXECUTIVE (BCB)****AMDT 4 08073 (FAA)**

TAKE-OFF MINIMUMS: **Rwy 12**, 400-1¼ or std. w/ min. climb of 563' per NM to 2700.

DEPARTURE PROCEDURE: **Rwy 12**, climbing right turn direct PSK VORTAC to 3500 before proceeding on course. **Rwy 30**, climbing left turn direct PSK VORTAC to 4100 before proceeding on course.

NOTE: **Rwy 12**, bushes and trees beginning 275' from departure end of runway, 154' left of centerline, up to 100' AGL/2239' MSL. Trees beginning 5108' from departure end of runway, 1363' left of centerline, up to 100' AGL/2499' MSL. Trees beginning 3165' from departure end of runway, 1324' right of centerline up to 100' AGL/2279' MSL. **Rwy 30**, trees beginning 90' from departure end of runway, 461' left of centerline, up to 46' AGL/2140' MSL. Fence and obstruction light pole beginning 546' from departure end of runway, 161' left of centerline, up to 12' AGL/2139' MSL. Vehicle on road beginning 567' from departure end of runway, 310' left of centerline, 24' AGL/2137' MSL. Trees beginning 2080' from departure end of runway, 788' left of centerline, up to 100' AGL/2201' MSL. Fence, 861' from departure end of runway, 52' right of centerline, up to 12' AGL/2135' MSL. Trees beginning 539' from departure end of runway, 326' right of centerline, up to 40' AGL/2153' MSL. Trees beginning 1328' from departure end of runway, 117' right of centerline, up to 100' AGL/2182' MSL terrain beginning 330' from departure end of runway, 366' right of centerline, up to 2138' MSL pole and antenna beginning 1149' from departure end of runway, 391' right of centerline, up to 40' AGL/2151' MSL.



BLACKSTONE, VA

ALLEN C PERKINSON BLACKSTONE AAF

TAKE-OFF MINIMUMS: **Rwy 1**, 1000-2 or std. with a min. climb of 280' per NM to 1700. **Rwy 4**, 1000-2 or std. with a min. climb of 220' per NM to 1700. **Rwy 19**, NA.

DEPARTURE PROCEDURE: **Rwy 1**, climb heading 010° to 1700 before proceeding on course. **Rwy 4**, climb heading 039° to 1700 before proceeding on course.

Rwy 22, climb heading 208° to 900 before proceeding on course. **Rwy 22**, climb heading 208° to 900 before proceeding on course.

NOTE: **Rwy 4**, 50' AGL tree, 150' from departure end of runway, 450' right of centerline. **Rwy 22**, 66' AGL tree, 175' from departure end of runway, 450' left of centerline. Do not fly over ammunition dump 1.1 NM SW of Rwy 4.

BRIDGEWATER, VA

BRIDGEWATER AIRPARK

TAKE-OFF MINIMUMS: **Rwy 15**, 700-1. **Rwy 33**, 700-2.

DEPARTURE PROCEDURE: **All aircraft** climb in VBV holding pattern (SW, right turns, 035° inbound) to 4000 before proceeding on course.

BROOKNEAL, VA

BROOKNEAL/CAMPBELL COUNTY

NOTE: **Rwy 6**, multiple trees beginning 569' from departure end of runway, 252' right of centerline, up to 100' AGL/689' MSL. **Rwy 24**, multiple trees beginning 334' from departure end of runway, 286' right of centerline, up to 100' AGL/679' MSL. Multiple trees beginning 1377' from departure end of runway, 850' left of centerline, up to 100' AGL/719' MSL.

CAMBRIDGE, MD

CAMBRIDGE-DORCHESTER

TAKE-OFF MINIMUMS: **Rwy 34**, 300-1.

CAMP PEARY LNDG STRIP (KW94)

WILLIAMSBURG, VA 08213

TAKE-OFF OBSTACLES: **Rwy 5**: trees and multiple transmission lines 120' from DER, 184' left of centerline up to 95' AGL/126' MSL. Trees and multiple transmission lines 162' from DER, 257' right of centerline up to 100' AGL/132' MSL. **Rwy 23**: trees and multiple transmission lines 1891' from DER, 69' left of centerline up to 95' AGL/136' MSL. Multiple trees and transmission lines 537' from DER, 437' right of centerline up to 110' AGL/151' MSL.

CHARLOTTESVILLE, VA

CHARLOTTESVILLE-ALBEMARLE (CHO)

AMDT 9 09295 (FAA)

TAKE-OFF MINIMUMS: **Rwy 3**, std. w/ min. climb of 323' per NM to 1500, or 2200-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 3**, climb via heading 030° to 1500 then climbing right turn to 4000 direct GVE VORTAC before proceeding on course, or for climb in visual conditions: cross Charlottesville-Albemarle airport at or above 2700 before proceeding on course.

Rwy 21, climb via heading 210° to 1400, then climbing left turn to 4000 direct GVE VORTAC before proceeding on course.

NOTE: **Rwy 3**, pole 97' from DER, 476' right of centerline, 27' AGL/627' MSL. Trees beginning 836' from DER, 597' right of centerline, up to 100' AGL/1216' MSL. Tower 2.3 NM from DER, 3443' right of centerline, 107' AGL/1167' MSL. Terrain beginning 2.2 NM from DER, 3183' right of centerline, up to 1116' MSL.

CHASE CITY, VA

CHASE CITY MUNI

NOTE: **Rwy 18**, trees beginning 191' from departure end of runway, 116' left of centerline, up to 100' AGL/609' MSL. Multiple trees beginning 327' from departure end of runway, 133' right of centerline, up to 100' AGL/599' MSL. **Rwy 36**, trees beginning 164' from departure end of runway, 154' right of centerline, up to 100' AGL/649' MSL. Trees beginning 470' from departure end of runway, 124' left of centerline, up to 100' AGL/649' MSL.

CHURCHVILLE, MD

HARFORD COUNTY

TAKE-OFF MINIMUMS: **Rwy 28**, 300-1 or std. with a min. climb of 400' per NM to 600.

NOTE: **Rwy 28**, 100' terrain/trees 1150' from departure end of runway.

CLARKSVILLE, VA

LAKE COUNTRY RGNL

TAKE-OFF MINIMUMS: **Rwy 4**, 600-1 or std. with a min. climb of 260' per NM to 700.

DEPARTURE PROCEDURE: **Rwy 22**, climb runway heading to 1900 before turning.

CLINTON, MD

WASHINGTON EXECUTIVE/HYDE FIELD (W32)

ORIG 08045 (FAA)

NOTES: **Rwy 5**, Vehicle on road beginning 20' from departure end of runway, on centerline, up to 15' AGL/261' MSL. **Rwy 23**, Vehicle on road 23' from departure end of runway, 329' left of centerline, 15' AGL/260' MSL.

COLLEGE PARK, MD

COLLEGE PARK (CGS)

AMDT 3B 08157 (FAA)

TAKE-OFF MINIMUMS: **Rwy 15**, 400-2½ or std. w/ min. climb of 486' per NM to 600. **Rwy 33**, 400-2½ or std. w/ min. climb of 433' per NM to 600.

DEPARTURE PROCEDURE: **Rwy 15**, climb heading 149° to 600 before proceeding on course. **Rwy 33**, climb heading 329° to 600 before proceeding on course.

NOTE: **Rwy 15**, trees beginning 2799' from departure end of runway, 570' left of centerline, up to 100' AGL/259' MSL. Antenna 1.1 NM from departure end of runway, 149' left of centerline, 167' AGL/270' MSL. **Rwy 33**, terrain beginning 1 NM from departure end of runway, 3700' right of centerline to 3700' left of centerline, up to 439' MSL. Building 3811' from departure end of runway, 467' right of centerline, 184' AGL/254' MSL. Tower 1.9 NM from departure end of runway, 1447' left of centerline, 255' AGL/405' MSL.

CRISFIELD, MD

CRISFIELD MUNI

TAKE-OFF MINIMUMS: **Rwys 6, 24**, NA-obstacles

DEPARTURE PROCEDURE: **Rwy 14**, climb via heading 142° to 900 before proceeding on course.

Rwy 32, climb via heading 322° to 900 before proceeding on course.

CULPEPER, VA

CULPEPER RGNL (CJR)

ORIG 07354 (FAA)

DEPARTURE PROCEDURE: **Rwy 22**, climb heading 218° to 1000 before turning right.

NOTE: **Rwy 4**, tree 79' from departure end of runway, 418' left of centerline 86' AGL/337' MSL. Vehicle on road 207' from departure end of runway, 367' left of centerline, 15' AGL/330' MSL. Tree 3396' from departure end of runway, 514' right of centerline, 91' AGL/410' MSL. **Rwy 22**, tree 128' from departure end of runway, 332' left of centerline, 25' AGL/334' MSL. Multiple trees beginning 272' from departure end of runway, 179' right of centerline up to 22' AGL/341' MSL. Pole 1480' from departure end of runway, 68' left of centerline, 27' AGL/356' MSL.

CUMBERLAND, MD

GREATER CUMBERLAND RGNL

TAKE-OFF MINIMUMS: **Rwy 5**, 1700-2 or std. with a min. climb of 300' per NM to 3400. **Rwy 11**, 1600-2 or std. with a min. climb of 520' per NM to 3400. **Rwy 23**, 1200-2 or std. with a min. climb of 660' per NM to 3400. **Rwy 29**, NA.

DEPARTURE PROCEDURE: **Rwys 5, 11**, climb runway heading to 3400 before proceeding on course. **Rwy 23**, climbing left turn to intercept 177° course from CBE NDB to 3400 before proceeding on course.

DANVILLE, VA

DANVILLE RGNL

TAKE-OFF MINIMUMS: **Rwys 2, 31**, 300-1 or std. with a min. climb of 240' per NM to 1000.

DAVISON AAF (KDAA)

FORT BELVOIR, VA

.....Rwy 32, 300-1*

*Or standard with minimum climb of 380/NM to 500.

TAKE-OFF OBSTACLES: **Rwy 32**, 63' AGL tree 865' from departure end of rwy, 82' right of centerline.

DOVER AFB (KDOV)

DOVER, DE 09155

TAKE-OFF OBSTACLES: **Rwy 1**, possible aircraft/vehicles at DER hammerhead just left of rwy centerline, up to 65' AGL/91' MSL. **Rwy 19**, possible aircraft/vehicles at DER hammerhead just right of rwy centerline, up to 65' AGL/91' MSL. **Rwy 32**, multiple C-5s parked on ramp beginning 1535' thru 2780' from DER, 1010' left of centerline, up to 65' AGL/98' MSL. Bldg 3900' from DER, 760' left of centerline, 88' AGL/119' MSL. Possible taxiing aircraft/vehicles on taxiway Alpha beginning 565' thru 2780' from DER, 750' left of centerline, up to 65' AGL/98' MSL. Possible large aircraft 2800' from DER, on taxiway Golf just left of centerline, up to 65' AGL/92' MSL.

DOVER/CHESWOLD, DE

DELAWARE AIRPARK

NOTE: **Rwy 9**, multiple trees beginning 26' from departure end of runway, 50' left of centerline, up to 100' AGL/149' MSL. Pole line 1151' from departure end of runway, 36' right of centerline, 50' AGL/99' MSL. Multiple trees beginning 815' from departure end of runway, 505' right of centerline, up to 100' AGL/154' MSL. **Rwy 27**, multiple trees beginning 231' from departure end of runway, 85' left of centerline, up to 100' AGL/169' MSL. Multiple trees beginning 829' from departure end of runway, 43' right of centerline, up to 100' AGL/164' MSL.

DUBLIN, VA

NEW RIVER VALLEY (PSK)

AMDT 2 09071 (FAA)

TAKE-OFF MINIMUMS: **Rwy 24**, 200-1½ or std. w/ min. climb of 310' per NM to 2400.

DEPARTURE PROCEDURE: **Rwy 6**, climbing right turn heading 150° to intercept PSK VORTAC R-120 outbound to 5200 before proceeding on course.

Rwy 24, climb heading 238° to 4000 before proceeding on course.

NOTE: **Rwy 6**, tree 321' from DER, 493' left of centerline, 100' AGL/2112' MSL. Terrain 122' from DER, 460' left of centerline, up to 2105' MSL. **Rwy 24**, pole 1223' from DER, 671' right of centerline, 42' AGL/2161' MSL. Pole 669' from DER, 558' right of centerline, 18' AGL/2137' MSL. Pole 4851' from DER, 1170' left of centerline, 32' AGL/2231' MSL. Tower 5078' from DER 1017' left of centerline, 101' AGL/2300' MSL. Trees 226' from DER, 271' left of centerline, up to 103' AGL/2302' MSL. Terrain 68' from DER, 281' right of centerline, up to 2116' MSL.

EASTON, MD**EASTON/NEWNAM FIELD**

TAKE-OFF MINIMUMS: **Rwy 22**, 300-2 or std. w/ climb of 241' per NM to 500.

NOTE: **Rwy 4**, vehicles on roads beginning 199' from departure end of runway, 350' right of centerline, up to 15' AGL/102' MSL. Multiple poles beginning 434' from departure end of runway, 88' right of centerline, up to 31' AGL/100' MSL. Multiple trees beginning 1485' from departure end of runway, 46' right of centerline, up to 64' AGL/133' MSL. Tree 1509' from departure end of runway, 38' left of centerline, 47' AGL/116' MSL.

Rwy 15, fence 2' from departure end of runway, 411' left of centerline, 8' AGL/57' MSL. Multiple poles beginning 721' from departure end of runway, 183' left of centerline, up to 64' AGL/123' MSL. Multiple poles beginning 828' from departure end of runway, 514' right of centerline, up to 26' AGL/85' MSL. Multiple trees beginning 862' from departure end of runway, 275' left of centerline, up to 89' AGL/148' MSL. Multiple trees beginning 1357' from departure end of runway, 238' right of centerline, up to 94' AGL/153' MSL. **Rwy 22**, tree 1251' from departure end of runway, 786' right of centerline, 56' AGL/95' MSL. Multiple trees beginning 1323' from departure end of runway, 759' left of centerline, up to 90' AGL/129' MSL. Tower 1.6 NM from departure end of runway, 2373' left of centerline, 276' AGL/291' MSL. **Rwy 33**, multiple trees 10' from departure end of runway, 19' right of centerline, up to 139' AGL/158' MSL. Vehicle on road 352' from departure end of runway, 405' right of centerline, 15' AGL/59' MSL. Pole 888' from departure end of runway, 409' left of centerline, 19' AGL/58' MSL. Multiple trees beginning 1153' from departure end of runway, 245' left of centerline, up to 99' AGL/118' MSL.

ELKTON, MD**Cecil County**

TAKE-OFF MINIMUMS: NOTE: **Rwy 13**, cross departure end of runway at or above 27' AGL/89' MSL. **Rwy 31**, 300-1½ or std. w/ min. climb of 290' per NM to 400.

DEPARTURE PROCEDURE: **Rwy 31**, climb heading 308° to 900 before turning left.

NOTE: **Rwy 13**, trees 185' from departure end of runway, 110' right of centerline, 50' AGL/113' MSL. Trees 325' from departure end of runway, 125' left of centerline, 75' AGL/138' MSL. **Rwy 31**, trees, 1350' from departure end of runway, on centerline, 115' AGL/221' MSL. Trees beginning 1050' from departure end of runway, 781' left to 781' right of centerline, up to 100' AGL/309' MSL.

EMPORIA, VA**EMPORIA-GREENSVILLE RGNL (EMV)****ORIG 09155 (FAA)**

NOTE: **Rwy 15**, vehicle on roadway 21' from DER, 291' left of centerline, up to 15' AGL/124' MSL. Trees beginning 56' from DER, 245' right of centerline, up to 60' AGL/169' MSL. Trees beginning 98' from DER, 231' left of centerline, up to 60' AGL/169' MSL. Trees beginning 1387' from DER, 387' left of centerline, up to 60' AGL/149' MSL. **Rwy 33**, trees beginning 115' from DER, 276' right of centerline, up to 60' AGL/189' MSL. Trees beginning 138' from DER, 321' left of centerline, up to 60' AGL/189' MSL. Vehicle on roadway, 163' from DER, 524' right of centerline, up to 15' AGL/144' MSL. Vehicle on roadway, 222' from DER, 534' left of centerline, up to 17' AGL/146' MSL.

FARMVILLE, VA**FARMVILLE RGNL (FVX)****ORIG 07354 (FAA)**

NOTE: **Rwy 3**, tree 1335' from departure end of runway, 277' right of centerline, 59' AGL/476' MSL. **Rwy 21**, vehicle on road 18' from departure end of runway, 495' left of centerline, 15' AGL/425' MSL. Tree 675' from departure end of runway, 315' right of centerline, 42' AGL/452' MSL.

FELKER AAF (KFAF),**FORT EUSTIS, VA 08297**

Rwy 14, 32 standard.

TAKE-OFF OBSTACLES: **Rwy 14**: Tree 3133' from DER, 167' left of centerline, 103' AGL/112' MSL. **Rwy 32**: Crane 2938' from DER, 941' left of centerline, 114' AGL/124' MSL. Trees beginning 2931' from DER, 186' left of centerline up to 74' AGL/85' MSL.

FORT MEADE (ODENTON), MD**TIPTON**

NOTE: **Rwy 10**, cross departure end of runway at or above 17' AGL/167' MSL. **Rwy 10**, trees 1052' right of departure end of runway, 88' AGL/238' MSL.

FRANKLIN, VA**FRANKLIN MUNI-JOHN BEVERLY ROSE****(FKN)****AMD 2 09071 (FAA)**

NOTE: **Rwy 9**, trees beginning 1977' from DER, 349' left of centerline, up to 100' AGL/139' MSL. Trees beginning 1287' from DER, 236' right of centerline, up to 100' AGL/134' MSL. Vehicle on road 533' from DER, 604' right of centerline, 15' AGL/59' MSL. **Rwy 27**, trees beginning 100' from DER, 444' left of centerline, up to 100' AGL/134' MSL. Trees beginning 520' from DER, 520' right of centerline, up to 100' AGL/134' MSL. Vehicle on road 308' from DER, left to right of centerline, 15' AGL/44' MSL.

FREDERICK, MD**FREDERICK MUNI**

TAKE-OFF MINIMUMS: **Rwy 12**, 500-3 or std. with a min. climb of 270' per NM to 1000.

DEPARTURE PROCEDURE: **Rwys 5, 23**, climb runway heading to 2000 before proceeding on course. **Rwy 30**, climbing right turn to intercept FDK VOR R-010 to 2400 before proceeding on course.

FREDERICKSBURG, VA**SHANNON**

TAKE-OFF MINIMUMS: **Rwy 24**, 800-3 or std. with a min. climb of 290' per NM to 800.

DEPARTURE PROCEDURE: **Rwy 24**, climb to 800 via runway heading before proceeding on course.

NOTE: 744' tower 2.1 NM from departure end of Rwy 24.

FRIENDLY, MD**POTOMAC AIRFIELD**

TAKE-OFF MINIMUMS: **Rwys 6, 24**, 300-1.

NOTE: **Rwy 6**, 50' AGL trees 300' left of departure end of runway. 75' AGL trees 320' right of departure end of runway. **Rwy 24**, 80' AGL trees 200' right of departure end of runway. 75' AGL trees 200' left of departure end of runway. 30' AGL hanger 200' from departure end of runway, 190' right of centerline.

FRONT ROYAL, VA**FRONTROYAL-WARREN COUNTY**

TAKE-OFF MINIMUMS: **Rwy 9**, std. w/ min. climb of 409' per NM to 1100, or 2300-3 for climb in visual conditions. **Rwy 27**, NA-obstacles.

DEPARTURE PROCEDURE: **Rwy 9**, climbing left turn via MRB R-216 to MRB VORTAC before proceeding on course, do not exceed 180 knots until MRB VORTAC; or for climb in visual conditions: cross Front Royal-Warren County Airport at or above 2900 MSL before proceeding on course.

NOTE: **Rwy 9**, multiple trees beginning 148' from departure end of runway, 99' right of centerline, up to 100' AGL/939' MSL. Multiple trees beginning 182' from departure end of runway, 189' left of centerline, up to 100' AGL/854' MSL.

GAITHERSBURG, MD**MONTGOMERY COUNTY AIRPARK**

TAKE-OFF MINIMUMS: NOTE: **Rwy 14**, 62' AGL trees 197' right of centerline. **Rwy 32**, 63' AGL trees 335' left of centerline.

GALAX-HILLSVILLE, VA**TWIN COUNTY**

TAKE-OFF MINIMUMS: **Rwy 19**, 300-1 or std. with a min. climb of 240' per NM until passing 3000. **Rwy 1**, 300-1 or std. with a min. climb of 310' per NM until passing 3000.

GEORGETOWN, DE**SUSSEX COUNTY**

TAKE-OFF MINIMUMS: **Rwys 4, 13, 22, 31**, 300-1.

GRUNDY, VA**GRUNDY MUNI**

TAKE-OFF MINIMUMS: **Rwy 22**, 300-2 or std. with a min. climb of 240' per NM to 2700.

HAGERSTOWN, MD**HAGERSTOWN RGNL -RICHARD A. HENSON FIELD**

TAKE-OFF MINIMUMS: **Rwy 2**, 300-1.

DEPARTURE PROCEDURE: **Rwy 9**, climbing left turn to 2500 via 040° heading to intercept the HGR R-084 before departing as cleared. **Rwys 2, 20**, climb to 2000 before turning eastbound.

HOT SPRINGS, VA**INGALLS FIELD**

TAKE-OFF MINIMUMS: **Rwy 7**, 500-1 or std. with a min. climb of 320' per NM to 4400. **Rwy 25**, 600-1 or std. with a min. climb of 390' per NM to 5000.

DEPARTURE PROCEDURE: **Rwy 7**, climb runway heading to 4400 before proceeding on course.

Rwy 25, climb runway heading to 5000 before proceeding on course.

INDIAN HEAD, MD**MARYLAND**

TAKE-OFF MINIMUMS: **Rwy 36**, 300-1½ or std. w/ min. climb of 360' per NM to 600.

NOTE: **Rwy 18**, trees abeam departure end of runway, 125' left of centerline, up to 100' AGL/256' MSL. Trees 269' from departure end of runway, on centerline, 100' AGL/256' MSL. Trees abeam departure end of runway, 125' right of centerline, up to 100' AGL/256' MSL. Tower 6170' from departure end of runway, 620' right of centerline, 190' AGL/384' MSL. **Rwy 36**, trees 258' from departure end of runway, 309' left of centerline, up to 100' AGL/271' MSL. Tree 567' from departure end of runway, 125' left of centerline, 60' AGL/230' MSL. Rising terrain beginning 73' from departure end of runway, 64' right of centerline, 180' MSL.

JONESVILLE, VA**LEE COUNTY**

TAKE-OFF MINIMUMS: **Rwy 7**, std. w/ min. climb of 467' per NM to 3800, or 1900-3 for climb in visual conditions. **Rwy 25**, std. w/ min. climb of 442' per NM to 3500, or 1900-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 7, 25**, for climb in visual conditions cross Lee County Airport at or above 3200 before proceeding on course.

NOTE: **Rwy 7**, terrain 116' from departure end of runway, 72' right of centerline, 1439' MSL. Terrain 691' from departure end of runway, 53' right of centerline, 1459' MSL. Terrain 267' from departure end of runway, 190' left of centerline, 1439' MSL. Terrain 479' from departure end of runway, 68' left of centerline, 1459' MSL.

LANGLEY AFB (KLFJ)

HAMPTON, VA

..... Orig 07354

..... **Rwy 8**, 500-3*

* Or standard with minimum climb of 240 ft/NM to 700.

NOTE: Rwy 26, cross DER at or above

10' AGL/18' MSL.

TAKE-OFF OBSTACLES: **Rwy 8**, Boat 2261' from DER, 779' left of centerline, 60' AGL/80' MSL. Boat 2500' from DER, 59' left of centerline, 60' AGL/70' MSL. Vehicle on road 1051' from DER, 702' right of centerline, 15' AGL/43' MSL. Boat 2841' from DER, 641' right of centerline, 60' AGL/80' MSL. Multiple towers 2.0 NM from DER, 1.7 NM right of centerline, 503' AGL/511' MSL. Rwy 26, Tree 4050' from DER, 685' left of centerline, 100' AGL/120' MSL. Tree 4840' from DER, 687' left of centerline, 100' AGL/136' MSL. Tree 4044' from DER, 31' left of centerline, 101' AGL/113' MSL. Tree 4153' from DER, 342' right of centerline, 101' AGL/114' MSL. Tree 4037' from DER, 623' right of centerline, 101' AGL/110' MSL. Tree 4377' from DER, 435' right of centerline, 100' AGL/121' MSL. Tree 3805' from DER, 1184' right of centerline, 100' AGL/133' MSL.

LAUREL, DE

LAUREL

DEPARTURE PROCEDURE: **Rwys 15, 33**, climb runway heading to 1200 before proceeding on course.

LAWRENCEVILLE, VA

LAWRENCEVILLE/BRUNSWICK MUNI

TAKE-OFF MINIMUMS: **Rwys 6, 24**, NA.NOTE: **Rwy 18**, trees 1654' from departure end of

runway, 772' left of centerline, 88' AGL/407' MSL.

Trees 200' from departure end of runway, on centerline,

22' AGL/321' MSL. **Rwy 36**, trees 1487' from departure

end of runway, 20' left of centerline, 88' AGL/420' MSL.

Trees 113' from departure end of runway, 372' right of centerline, 88' AGL/420' MSL.

LEESBURG, VA

LEESBURG EXECUTIVE (JYO)

AMDT 1 09183 (FAA)

DEPARTURE PROCEDURE: **Rwy 35**, climb heading 351° to 900 before proceeding on course.

NOTE: **Rwy 17**, building 167' from DER, 360' left of

centerline, 22' AGL/401' MSL. Pole 958' from DER,

373' left of centerline, 32' AGL/421' MSL. Trees

beginning 138' from DER, left and right of centerline,

up to 100' AGL/464' MSL. **Rwy 35**, terrain 96' from

DER, 453' left of centerline, 381' MSL. Tree 1078' from

DER, 525' left of centerline, up to 100' AGL/413' MSL.

Trees 682' from DER, 333' right of centerline, up to

100' AGL/459' MSL. Pole 638' from DER, 642' right of

centerline, 49' AGL/428' MSL.

LEONARDTOWN, MD

ST. MARY'S COUNTY RGNL

NOTES: **Rwy 11**, multiple trees beginning 88' from departure end of runway, 339' left of centerline, up to 80' AGL/205' MSL. Multiple trees beginning 61' from departure end of runway, 193' right of centerline up to 80' AGL/205' MSL. **Rwy 29**, multiple trees beginning 996' from departure end of runway, 227' left of centerline up to 79' AGL/221' MSL. Multiple trees beginning 596' from departure end of runway, 277' right of centerline up to 71' AGL/213' MSL. Multiple towers on buildings beginning 53' from departure end of runway, 400' right of centerline up to 26' AGL/168' MSL. Equipment on building 223' from departure end of runway, 449' right of centerline, 15' AGL/169' MSL. Tower 402' from departure end of runway, 399' right of centerline, 33' AGL/175' MSL. Fence 496' from departure end of runway, 241' right of centerline, 22' AGL/164' MSL.

LOUISA, VA

LOUISA COUNTY/FREEMAN FIELD (LKU)

ORIG 08157 (FAA)

NOTE: **Rwy 9**, trees beginning abeam departure end of runway, 369' right of centerline, up to 100' AGL/589' MSL. Trees beginning 226' from departure end of runway, 541' left of centerline, up to 100' AGL/559' MSL. Trees beginning 1200' from departure end of runway, left and right of centerline, up to 100' AGL/539' MSL. **Rwy 27**, trees beginning abeam departure end of runway, 350' right of centerline, up to 100' AGL/569' MSL. Trees beginning 211' from departure end of runway, 133' right of centerline, up to 100' AGL/569' MSL. Trees beginning 69' from departure end of runway, 513' left of centerline, up to 100' AGL/569' MSL. Trees beginning 586' from departure end of runway, left and right of centerline, up to 100' AGL/549' MSL.

LURAY, VA

LURAY CAVERNS

TAKE-OFF MINIMUMS: **Rwys 4, 22**, 1000-3

DEPARTURE PROCEDURE: Climb visually so as to cross airport at or above 2000, then continue climb to 5000 via LUA 215° bearing before proceeding on course.

LYNCHBURG, VA

FALWELL

TAKE-OFF MINIMUMS: **Rwy 10**, 1100-2½ for climb in visual conditions. **Rwy 28**, NA-obstacle.

DEPARTURE PROCEDURE: **Rwy 10**, for climb in visual conditions: cross Falwell Airport at or above 1900 before proceeding on course.

NOTE: **Rwy 10**, multiple trees 9' from departure end of runway, 87' right of centerline, up to 100' AGL/899' MSL. Multiple power lines 2896' from departure end of runway, 1192' right of centerline, up to 149' AGL/968' MSL.



LYNCHBURG, VA (CON'T)

LYNCHBURG RGNL/PRESTON GLENN
FIELD (LYH)

AMDT 8 08073 (FAA)

TAKE-OFF MINIMUMS: **Rwy 17**, 300-2¼ or std. w/ min. climb of 232' per NM to 1500. **Rwy 35**, std. w/ min. climb of 350' per NM to 3000, or 1700-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 4**, climb heading 036° to 2200 before proceeding on course. **Rwy 17**, climb heading 169° to 1800 before turning right. **Rwy 22**, climb heading 216° to 1800 before turning right. **Rwy 35**, climb heading 349° to 3000 before turning left, or for climb in visual conditions: cross Lynchburg Rgnl/Preston Glenn Field at or above 2500' MSL before proceeding on course.

NOTE: **Rwy 4**, trees beginning 2029' from departure end of runway, 62' right of centerline up to 81' AGL/999' MSL. Trees beginning 1422' from departure end of runway, 3' left of centerline up to 76' AGL/995' MSL. Poles beginning 427' from departure end of runway, 483' right of centerline up to 44' AGL/1044' MSL. Obstruction lights on fence beginning 2' from departure end of runway, 500' right of centerline up to 30' AGL/948' MSL. Antenna on building 395' from departure end of runway, 277' right of centerline 15' AGL/954' MSL. Light 606' from departure end of runway, 599' right of centerline, 18' AGL/982' MSL. Building 400' from departure end of runway, 345' right of centerline, 12' AGL/951' MSL. **Rwy 17**, trees beginning 284' from departure end of runway, 77' left of centerline up to 277' AGL/1195' MSL. Trees beginning 265' from departure end of runway, 178' right of centerline up to 57' AGL/969' MSL. Obstruction light on pole 9326' from departure end of runway 333' left of centerline, 270' AGL/1188 MSL. **Rwy 22**, trees beginning 274' from departure end of runway, 245' right of centerline up to 41' AGL/979' MSL. Trees beginning 2616' from departure end of runway, 206' left of centerline up to 41' AGL/979' MSL. Poles beginning 2872' from departure end of runway, 603' right of centerline up to 44' AGL/982' MSL. **Rwy 35**, trees beginning 2955' from departure end of runway, 140' right of centerline up to 96' AGL/ 1014' MSL. Trees beginning 722' from departure end of runway, 71' left of centerline up to 119' AGL/1037' MSL. Pole 36' from departure end of runway 98' left of centerline, 25' AGL/ 943' MSL.

MANASSAS, VA

MANASSAS RGNL/HARRY P. DAVIS FIELD

NOTE: **Rwy 16R**, terrain 64' from departure end of runway, 136' right of centerline, 179' MSL. Numerous trees beginning 242' from departure end of runway, 53' right of centerline up to 100' AGL/279' MSL. Vehicle on road 886' from departure end of runway, 463' right of centerline, 15' AGL/214' MSL. Terrain 33' from departure end of runway, 427' left of centerline, 179' MSL. Numerous trees beginning 688' from departure end of runway, 40' left of centerline, up to 100' AGL/279' MSL. **Rwy 16L**, terrain 56' from departure end of runway, 177' left of centerline, 179' MSL. Numerous trees beginning 1911' from departure end of runway, 158' left of centerline, up to 83' AGL/292' MSL. Terrain 87' from departure end of runway, 386' right of centerline, 179' MSL. Numerous trees beginning 2559' from departure end of runway, 29' right of centerline, up to 100' AGL/273' MSL. **Rwy 34R**, sign 70' from departure end of runway, 91' right of centerline, 6' AGL/ 196' MSL. Terrain beginning 23' from departure end of runway, 222' right of centerline, up to 199' MSL. Vehicle on road 198' from departure end of runway, 9' right of centerline, 15' AGL/214' MSL. Numerous trees beginning 1860' from departure end of runway, 828' right of centerline, 70' AGL/280' MSL. Numerous trees beginning 2875' from departure end of runway, 484' left of centerline, up to 27' AGL/266' MSL. **Rwy 34L**, terrain 107' from departure end of runway, 409' right of centerline, 189' MSL. Numerous trees beginning 2802' from departure end of runway, 251' right of centerline, up to 27' AGL/266' MSL. Terrain 76' from departure end of runway, 154' left of centerline, 189' MSL. Vehicle on road 366' from departure end of runway, 19' left of centerline, 15' AGL/204' MSL. Numerous trees beginning 1603' from departure end of runway, 249' left of centerline, up to 43' AGL/252' MSL. Tower 3398' from departure end of runway, 1102' left of centerline, 68' AGL/274' MSL.

MARION/WYTHEVILLE, VA

MOUNTAIN EMPIRE

TAKE-OFF MINIMUMS: **Rwy 8**, 300-1. **Rwy 26**, 800-1. DEPARTURE PROCEDURE: **Rwy 8**, climb direct to MK NDB then climb to 5300 via 073° bearing before proceeding on course. **Rwy 26**, climb to 5400 via 253° bearing from MK NDB before proceeding on course.

MARTINSVILLE, VA

BLUE RIDGE (MTV)

AMDT 2A 08269 (FAA)

TAKE-OFF MINIMUMS: **Rwy 12**, std. with a min. climb of 240' per NM to 2100. **Rwy 30**, 300-1 or std. with a min. climb of 370' per NM to 1100.

DEPARTURE PROCEDURE: **Rwy 12**, climb direct BALES LOM, climb in BALES LOM holding pattern (SE, right turns, 304° inbound) to 4000 before proceeding on course. **Rwy 30**, climbing right turn direct BALES LOM, climb in BALES LOM holding pattern (SE, right turns, 304° inbound) to 4000 before proceeding on course.

NOTE: **Rwy 12**, trees 38' from departure end of runway, 380' right of centerline, 82' AGL/941' MSL. Trees 316' from departure end of runway, 320' left of centerline, 56' AGL/956' MSL.

MELFA, VA

ACCOMACK COUNTY

NOTE: **Rwy 3**, multiple trees beginning 41' from departure end of runway, 221' right of centerline, up to 84' AGL/128' MSL. Truck on road 204' from departure end of runway, 231' left of centerline, 15' AGL/61' MSL. Multiple trees beginning 249' from departure end of runway, 14' left of centerline, up to 106' AGL/155' MSL. Truck on road 494' from departure end of runway, 228' left of centerline, 15' AGL/62' MSL. Rod on obstruction light tower 862' from departure end of runway, 402' left of centerline, 55' AGL/99' MSL. **Rwy 21**, multiple trees beginning 27' from departure end of runway, 395' right of centerline, up to 91' AGL/135' MSL. Multiple trees 504' from departure end of runway, 403' left of centerline, up to 110' AGL/144' MSL.

MIDDLETOWN, DE

SUMMIT

TAKE-OFF MINIMUMS: **Rwy 35**, 300-1, or std. with a min. climb of 280' per NM to 400.

MITCHELLVILLE, MD

FREEWAY

TAKE-OFF MINIMUMS: **Rwy 18**, 300-1 or std. with a min. climb of 295' per NM to 500. **Rwy 36**, 300-1 or std. with a min. climb of 500' per NM to 600.

NOTE: **Rwy 18**, trees 328' from departure end of runway, 20' AGL/178' MSL. Trees 838' from departure end of runway, 337' left of centerline, 50' AGL/220' MSL. **Rwy 36**, cross departure end of runway at or above 35' AGL/203' MSL. Road/vehicle, 231' from departure end of runway, 17' AGL/185' MSL. Trees 332' from departure end of runway, 20' AGL/188' MSL. Power poles and lines crossing centerline, 2280' from departure end of runway, 186' AGL/345' MSL.

MONETA, VA

SMITH MOUNTAIN LAKE

TAKE-OFF MINIMUMS: **Rwys 5, 23**, 300-1.
DEPARTURE PROCEDURE: **Rwys 5, 23**, climb straight ahead to 1600 before proceeding on course.

NEWPORT NEWS, VA

NEWPORT NEWS/WILLIAMSBURG INTL

TAKE-OFF MINIMUMS: **Rwy 20**, 300-1¼ or standard with a minimum climb of 255' per NM to 300.

NOTE: **Rwy 2**, bush 295' from departure end of runway, 291' right of centerline 22' AGL/62' MSL. Tree 937' from departure end of runway, 603' left of centerline 81' AGL/131' MSL. Pole 1221' from departure end of runway, 487' right of centerline 31' AGL/81' MSL. Tree 1275' from departure end of runway, 517' left of centerline 79' AGL/132' MSL. Multiple trees beginning 1554' from departure end of runway, 298' left of centerline up to 88' AGL/141' MSL. Tree 1686' from departure end of runway, 428' right of centerline 61' AGL/114' MSL. Tree 1849' from departure end of runway, 598' right of centerline 72' AGL/125' MSL. T-L tower 3351' from departure end of runway, 1008' left of centerline 109' AGL/161 MSL. **Rwy 7**, tree 371' from departure end of runway, 588' left of centerline 36' AGL/73' MSL. T-L tower 4120' from departure end of runway, 1324' right of centerline 93' AGL/116' MSL. T-L tower 5625' from departure end of runway, 1345' left of centerline 133' AGL/191' MSL. **Rwy 20**, bush 96' from departure end of runway, 293' left of centerline 22' AGL/52' MSL. Stack 5977' from departure end of runway, 598' left of centerline 186' AGL/227' MSL. **Rwy 25**, tree 694' from departure end of runway, 549' right of centerline 42' AGL/65' MSL. Tree 1020' from departure end of runway, 703' right of centerline 23' AGL/97' MSL. Tree 1622' from departure end of runway, 529' left of centerline 59' AGL/79' MSL. Tree 2654' from departure end of runway, 335' right of centerline 86' AGL/106' MSL. Tree 3435 from departure end of runway, 1125' right of centerline 116' AGL/139' MSL.

NORFOLK, VA

CHESAPEAKE RGNL

DEPARTURE PROCEDURE: **Rwys 5, 23**, climb runway heading to 500 before proceeding on course.

NOTE: **Rwy 5**, cross departure end of runway at or above 27' AGL/48' MSL. Trees 2200' from departure end of runway, 545' left of centerline, 81' AGL/102' MSL. **Rwy 23**, cross departure end of runway at or above 25' AGL/43' MSL. Trees 1600' from departure end of runway, 710' right of centerline, 62' AGL/82' MSL.

NORFOLK, VA (CON'T)

HAMPTON ROADS EXECUTIVE

TAKE-OFF MINIMUMS: **Rwy 10**, std. w/ min. climb of 217' per NM to 700, or alternatively w/ std. takeoff minimums and a normal 200' per NM climb gradient, takeoff must occur no later than 2100' prior to departure end of runway or 1700-2½ for climb in visual conditions. DEPARTURE PROCEDURE: **Rwy 2**, climb heading 019° to 1600 before turning west. **Rwy 10**, climb heading 102° to 900 before proceeding on course, or for climb in visual conditions, cross Hampton Roads Executive Airport at or above 1600 before proceeding on course. **Rwy 20**, climb heading 199° to 1000 before turning North. **Rwy 28**, climb heading 282° to 1500 before turning North.

NOTE: **Rwy 2**, multiple trees beginning 693' from departure end of runway, 286' left of centerline, up to 100' AGL/124' MSL. Multiple trees beginning 917' from departure end of runway, 422' right of centerline, up to 100' AGL/124' MSL. **Rwy 10**, trees 688' from departure end of runway, 374' left of centerline, 61' AGL/85' MSL. Vehicle on road and multiple trees beginning 750' from departure end of runway, 359' right of centerline, up to 100' AGL/124' MSL. Tower 1.1 NM from departure end of runway, 1424' left of centerline, 175' AGL/192' MSL. **Rwy 20**, vehicle on road and multiple trees beginning 199' from departure end of runway, 250' left of centerline, up to 100' AGL/124' MSL. Vehicle on road and multiple trees beginning 595' from departure end of runway, 8' right of centerline, up to 100' AGL/124' MSL. **Rwy 28**, multiple trees beginning 2711' from departure end of runway, 366' left of centerline, up to 100' AGL/124' MSL. Vehicle on road 3' from departure end of runway, 112' right of centerline, 17' AGL/34' MSL. Multiple trees beginning 2595' from departure end of runway, 362' right of centerline, up to 100' AGL/124' MSL.

NORFOLK, VA (CON'T)

NORFOLK INTL

NOTES: **Rwy 5**, mobile crane 4091' from departure end of runway, 1249' right of centerline, 150' AGL/163' MSL. Multiple ship masts beginning 2761' from departure end of runway, 22' right of centerline, up to 100' AGL/100' MSL. Multiple ship masts beginning 2564' from departure end of runway, 133' left of centerline, up to 100' AGL/100' MSL. Obstruction light on pole 3978' from departure end of runway, 931' left of centerline, 138' AGL/146' MSL. Multiple towers beginning 4045' from departure end of runway, 982' left of centerline, up to 138' AGL/146' MSL. Obstruction light on pole 2898' from departure end of runway, 811' right of centerline, 84' AGL/98' MSL. Antenna 4115' from departure end of runway, 1585' right of centerline, 117' AGL/131' MSL. Tower 2974' from departure end of runway, 772' right of centerline, 90' AGL/98' MSL, obstruction light on pole 2696' from departure end of runway, 1063' left of centerline, 84' AGL/91' MSL. Bush 29' from departure end of runway, 307' right of centerline, 6' AGL/20' MSL. Tree 1459' from departure end of runway, 159' left of centerline, 41' AGL/55' MSL. Tower 2938' from departure end of runway, 1254' left of centerline, 89' AGL/94' MSL. Tree 1399' from departure end of runway, 201' right of centerline, 38' AGL/52' MSL. Sign 82' from departure end of runway, 301' left of centerline, 2' AGL/19' MSL. Terrain 23' from departure end of runway, 227' left of centerline, 0' AGL/17' MSL. **Rwy 14**, tree 2541' from departure end of runway, 432' right of centerline, 101' AGL/121' MSL. Multiple trees beginning 443' from departure end of runway, 398' left of centerline, up to 75' AGL/95' MSL. Pole 1410' from departure end of runway, 254' right of centerline, 45' AGL/62' MSL. **Rwy 23**, rod on obstruction light pole 1012' from departure end of runway, 650' right of centerline, 56' AGL/73' MSL. Multiple trees beginning 619' from departure end of runway, 584' left of centerline, up to 81' AGL/98' MSL. Obstruction light on pole 1433' from departure end of runway, 738' left of centerline, 54' AGL/71' MSL. Multiple trees beginning 323' from departure end of runway, 504' right of centerline, up to 26' AGL/43' MSL. Pole 2165' from departure end of runway, 840' right of centerline, 57' AGL/74' MSL. **Rwy 32**, multiple trees beginning 17' from departure end of runway, 460' right of centerline, up to 81' AGL/98' MSL. Multiple trees and poles beginning 60' from departure end of runway, 333' left of centerline, up to 87' AGL/92' MSL. Road 207' from departure end of runway, 231' right of centerline, 12' AGL/29' MSL. Multiple obstruction lights on towers 201' from departure end of runway, 135' left of centerline, up to 12' AGL/27' MSL.

NORFOLK NS (CHAMBERS FIELD)(KNGU)

NORFOLK, VA 08269

Rwy 28: 300-1½*

* Or standard with minimum climb of 235'/NM (DoD) or 245'/NM (civil) to 300.

TAKE-OFF OBSTACLES: **Rwy 10**: Trees with a maximum height of 100' within 1500' of departure end of rwy. Cross departure end of rwy at or above 35' AGL/48' MSL.

OAKLAND, MD

GARRETT COUNTY (2G4)

ORIG 08101 (FAA)

NOTE: **Rwy 9**, Multiple trees beginning 75' from departure end of runway, 94' left of centerline, up to 100' AGL/2939' MSL. Multiple trees beginning 76' from departure end of runway, 47' right of centerline, up to 100' AGL/2939' MSL. **Rwy 27**, Multiple trees beginning 15' from departure end of runway, 334' left of centerline, up to 100' AGL/3019' MSL. Multiple trees beginning 19' from departure end of runway, 107' right of centerline, up to 100' AGL/3019' MSL.

OCEAN CITY, MD

OCEAN CITY MUNI

TAKE-OFF MINIMUMS: **Rwys 2, 32**, 400-2 or std. with a min. climb of 260' per NM to 500.

OCEANA NAS (APOLLO SOUCEK FIELD) (KNTU)

VIRGINIA BEACH, VA. 09351

TAKE-OFF OBSTACLES: **Rwy 5L**, Trees 115' MSL, 3706' from DER, 97' right of centerline. **Rwy 5R**, Trees 115' MSL, 3706' from DER, 603' left of centerline. **Rwy 14L**, Trees 105' MSL, 2792' from DER, 7' left of centerline. **Rwy 14R**, Trees 105' MSL, 2792' from DER, 708' left of centerline.

ORANGE, VA

ORANGE COUNTY

TAKE-OFF MINIMUMS: **Rwy 8**, 300-1.

DEPARTURE PROCEDURE: **Rwys 8, 26**, climb runway heading to 1500 before turning.

PATUXENT RIVER NAS (TRAPNELL FIELD),(KNHK)

PATUXENT RIVER, MD 09267

Rwy 6, Obstacle identification surface begins 15' above DER.

Rwy 14, Obstacle identification surface begins 35' above DER.

Rwy 20, Obstacle identification surface begins 20' above DER.

Rwy 24, Obstacle identification surface begins 15' above DER.

TAKE-OFF OBSTACLES: **Rwy 6**, Pole 63' AGL/83' MSL, 1967' from DER, 981' left of centerline. **Rwy 14**, Trees 42' AGL/57' MSL, 190' from DER, 223' left of centerline. Two lane road crossing rwy thld max ht 17' AGL/33' MSL, 193' from DER. Pole 34' AGL/50' MSL, 315' from DER, 198' left of centerline. Trees 43' AGL/59' MSL, 520' from DER, 637' right of centerline. **Rwy 20**, Trees 44' AGL/81' MSL, 1555' from DER, 845' right of centerline. Trees 56' AGL/93' MSL, 2057' from DER, 778' right of centerline. Trees 67' AGL/104' MSL, 2077' from DER, 818' right of centerline. Trees 93' AGL/130' MSL, 3029' from DER, 32' left of centerline. **Rwy 24**, 43' AGL/81' MSL, 1682' from DER, 582' left of centerline. Trees 57' AGL/93' MSL, 2015' from DER, 965' left of centerline. Trees 66' AGL/104' MSL, 2056' from DER, 948' left of centerline.

PETERSBURG, VA

DINWIDDIE COUNTY (PTB)

ORIG 07354 (FAA)

TAKE-OFF MINIMUMS: **Rwys 32, 14**, NA-obstacles.

NOTE: **Rwy 5**, numerous trees beginning 911' from departure end of runway, 551' left of centerline, up to 65' AGL/254' MSL. Fence 161' from departure end of runway, 472' right of centerline, 7' AGL/196' MSL. Tree 1031' from departure end of runway, 690' right of centerline, 57' AGL/256' MSL. **Rwy 23**, numerous trees beginning 2615' from departure end of runway, 69' right of centerline, up to 80' AGL/289' MSL. Fence 10' from departure end of runway, 476' left of centerline, 10' AGL/199' MSL. Numerous trees beginning 819' from departure end of runway, 528' left of centerline, up to 72' AGL/281' MSL.

PHILLIPS AAF (KAPG)

ABERDEEN PROVING GROUND, MD . . 07270

TAKE-OFF OBSTACLES: **Rwy 4**, vehicle on road 1059' from DER, on centerline, 10' AGL/86' MSL. Tree 1126' from DER, 118' left of centerline, 29' AGL/88' MSL. **Rwy 22**, vehicle on road 234' from DER, 27' right of centerline, 10' AGL/49' MSL. Multiple trees beginning 398' from DER, 311' right of centerline, up to 50' AGL/89' MSL. Tree 1094' from DER, 49' left of centerline, 43' AGL/62' MSL.

QUANTICO MCAF (TURNER FIELD) (KNYG)

QUANTICO, VA 09295

Diverse departures not authorized.

Rwy 2, 400-2½*

Rwy 20, 300-1¼**

* Or standard with minimum civil climb of 470 ft/NM to 600, minimum military climb of 410 ft/NM to 500.

** Or standard with minimum civil climb of 360 ft/NM to 400, minimum military climb of 320 ft/NM to 400.

DEPARTURE PROCEDURE: **Rwy 2**, Climbing right turn to 2000 direct BRV VORTAC or to assigned heading for radar vectors. **Rwy 20**, Climb to 2000 direct BRV VORTAC or as assigned for radar vectors.

TAKE-OFF OBSTACLES: **Rwy 2**, Multiple trees on rising terrain 100' AGL/296' MSL, 4075' from DER, 803' left of centerline. Multiple trees on rising terrain 100' AGL/197' MSL, 5763' from DER, 106' left of centerline. Multiple trees 100' AGL/240' MSL, 5763' from DER, 509' right of centerline. Smokestack 100' MSL, 2310' from DER, 401' left of centerline. Multiple smokestacks up to 397' MSL, 2 NM from DER, 4175' right of centerline. **Rwy 20**, Terrain 27' MSL, starting 347' from DER, 192' right of centerline. Trees 34' AGL/213' MSL, 5749' from DER, 1878' right of centerline.

QUINTON, VA

NEW KENT COUNTY

NOTE: **Rwy 10**, trees beginning 358' from departure end of runway, 6' left of centerline, up to 100' AGL/169' MSL. Trees beginning 994' from departure end of runway, 602' right of centerline, up to 100' AGL/209' MSL. Trees beginning 1396' from departure end of runway, 389' left of centerline, up to 100' AGL/209' MSL. Trees beginning 3422' from departure end of runway, left and right of centerline, up to 100' AGL/239' MSL. **Rwy 28**, trees beginning 345' from departure end of runway, 296' right of centerline, up to 100' AGL/209' MSL. Trees beginning 367' from departure end of runway, 527' left of centerline, up to 100' AGL/209' MSL. Trees beginning 2134' from departure end of runway, left and right of centerline, 100' AGL/239' MSL.

RICHMONDS, VA

TAZEWELL COUNTY

TAKE-OFF MINIMUMS: **Rwy 7**, 300-1 or std. with a min. climb of 430' per NM to 3000. **Rwy 25**, 300-1 or std. with a min. climb of 280' per NM to 2900.

DEPARTURE PROCEDURE: **Rwy 7**, climb runway heading to 4700 before proceeding southbound.

Rwy 25, climb runway heading to 4100 before proceeding southbound.

RICHMOND, VA

CHESTERFIELD COUNTY

TAKE-OFF MINIMUMS: **Rwy 15**, 800-1 or std. with a min. climb of 280' per NM to 1200. **Rwy 33**, 1200-1, or std. with a min. climb of 220' per NM to 1700.

DEPARTURE PROCEDURE: **Rwy 15**, climb runway heading to 1200' before proceeding on course.

Rwy 33, climb runway heading to 1700' before proceeding on course.

NOTE: **Rwy 15**, 18' AGL pole 1315' from departure end of runway, 304' left of centerline. **Rwy 33**, 84' AGL tree 2399' from departure end of runway, 84' left of centerline.

RICHMOND INTL

NOTE: **Rwy 2**, cross departure end of runway at or above 30' AGL/195' MSL. **Rwy 7**, cross departure end of runway at or above 34' AGL/223' MSL. **Rwy 16**, cross departure end of runway at or above 22' AGL/183' MSL. **Rwy 20**, cross departure end of runway at or above 35' AGL/193' MSL. **Rwy 25**, cross departure end of runway at or above 20' AGL/176' MSL. **Rwy 34**, cross departure end of runway at or above 10' AGL/177' MSL.

RICHMOND/ASHLAND, VA

HANOVER COUNTY MUNI (OPF)

ORIG 09239 (FAA)

NOTE: **Rwy 16**, trees beginning 48' from DER, 479' left of centerline, up to 101' AGL/291' MSL. Poles beginning 1077' from DER, 36' left of centerline, up to 36' AGL/236' MSL. Pole 1120' from DER 166' right of centerline 30' AGL/230' MSL. Trees beginning 1307' from DER, 26' left of centerline, up to 108' AGL/298' MSL. Trees beginning 1431' from DER, 319' right of centerline, up to 104' AGL/294' MSL. **Rwy 34**, road and trees beginning 149' from DER, 345' right of centerline, up to 47' AGL/247' MSL. Road and trees beginning 410' from DER, 386' left of centerline, up to 103' AGL/293' MSL. Poles beginning 660' from DER, on centerline, up to 39' AGL/239' MSL. Trees beginning 1402' from DER, 445' right of centerline, up to 100' AGL/290' MSL. Trees beginning 2714' from DER, 487' right of centerline, up to 104' AGL/304' MSL.

RIDGELY, MD

RIDGELY AIRPARK

NOTE: **Rwy 12**, multiple trees beginning 592' from departure end of runway, 6' left of centerline, up to 100' AGL/160' MSL. Multiple trees beginning 239' from departure end of runway, 338' right of centerline, up to 100' AGL/160' MSL.

ROANOKE, VA

ROANOKE RGNL/ WOODRUM FIELD (ROA)

AMD 8 08213 (FAA)

TAKE-OFF MINIMUMS: **Rwys 6, 33**, NA - obstacles.

Rwy 24, std. w/ min. climb of 216' per NM to 2600.

DEPARTURE PROCEDURE: **Rwy 15**, climb heading 154° to intercept the ROA VORTAC R-122 to 4000 before proceeding on course. **Rwy 24**, climb west on I-SZK LDA localizer course on 4200 to DIXXY Int'l-SZK 15.25 DME before proceeding on course.

NOTE: **Rwy 15**, trees 1.18 NM from departure end of runway, 2122' left of centerline, 60' AGL/1321' MSL. **Rwy 24**, bush 86' from departure end of runway, 385' left of centerline, 4' AGL/1163' MSL. Tree 150' from departure end of runway, 415' right of centerline, 60' AGL/1171' MSL. Tree 737' from departure end of runway, 454' right of centerline, 60' AGL/1179' MSL. Tree 1164' from departure end of runway, 726' right of centerline, 60' AGL/1206' MSL.

SALISBURY, MD

SALISBURY-OCEAN CITY WICOMICO RGNL (SBY)

ORIG 07354 (FAA)

NOTE: **Rwy 5**, trees and antennas beginning 961' from departure end of runway, 49' left of centerline, up to 83' AGL/135' MSL. Trees beginning 2769' from departure end of runway, 5' right of centerline, up to 85' AGL/136' MSL. **Rwy 23**, trees beginning 514' from departure end of runway, 518' left of centerline, up to 68' AGL/118' MSL. Trees and antenna beginning 774' from departure end of runway, 303' right of centerline, up to 76' AGL/127' MSL. Trees beginning 2835' from departure end of runway, 186' right of centerline, up to 75' AGL/125' MSL. **Rwy 32**, trailer, hangar and obstruction light beginning 120' from departure end of runway, 509' left of centerline, up to 23' AGL/72' MSL. Trees beginning 2215' from departure end of runway, 140' left of centerline, up to 79' AGL/128' MSL.



SALUDA, VA**HUMMEL FIELD**

DEPARTURE PROCEDURE: **Rwys 1, 19**, climb runway heading to 1000 before turning on course.

NOTE: **Rwy 1**, 23' AGL tree left of departure end of runway, 65' AGL tree 663' from departure end of runway, 129' left of centerline. **Rwy 19**, 26' AGL tree 237' from departure end of runway, 116' right of centerline.

SOUTH BOSTON, VA**WILLIAM M. TUCK**

TAKE-OFF MINIMUMS: **Rwy 1**, 300-1. **Rwys 5, 23**, NA.

NOTE: **Rwy 1**, 72' AGL tower 324' from departure end of runway, 283' left of runway centerline.

SOUTH HILL, VA**MECKLENBURG-BRUNSWICK RGNL**

TAKE-OFF MINIMUMS: **Rwy 1**, 300-1 or std. with a min. climb of 250' per NM to 1000. **Rwy 19**, 300-1 or std. with a min. climb of 370' per NM to 1000'

DEPARTURE PROCEDURE: **Rwys 1, 19**, climb runway heading to 1000 before proceeding on course.

STAFFORD, VA**STAFFORD RGNL**

DEPARTURE PROCEDURE: **Rwy 15**, climbing left turn to 2000, intercept and proceed via BRV R-310 to BRV VORTAC, before proceeding on course. **Rwy 33**, climbing left turn to 2000, intercept and proceed via BRV R-306 to BRV VORTAC, before proceeding on course.

NOTE: **Rwy 33**, cross departure end of runway at or above 34' AGL/246' MSL.

STAUNTON-WAYNESBORO-**HARRISONBURG, VA****SHENANDOAH VALLEY RGNL (SHD)****AMDT 6 09239 (FAA)**

TAKE-OFF MINIMUMS: **Rwy 5**, std. w/ min. climb of 273' per NM to 3800, or 2200-2½ for climb in visual conditions. **Rwy 23**, standard, or 2200-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 5**, climb heading 047° to 3400 before turning right, or for climb in visual conditions cross Shenandoah Valley Rgnl airport at or above 3300 before proceeding on course. **Rwy 23**, climb heading 227° to 4400 before proceeding on course, or for climb in visual conditions cross Shenandoah Valley Rgnl airport at or above 3300 before proceeding on course.

NOTE: **Rwy 5**, trees 1720' from DER, 635' right of centerline, up to 100' AGL/1279' MSL. **Rwy 23**, tree 679' from DER, 616' left of centerline, 35' AGL/1194' MSL.

STEVENSVILLE, MD**BAY BRIDGE**

TAKE-OFF MINIMUMS: **Rwy 29**, 500-3 or std. w/ min. climb of 317' per NM to 800.

NOTE: **Rwy 11**, road 354' from departure end of runway, on centerline, 17' AGL/35' MSL. Multiple trees beginning 1471' from departure end of runway, 32' left of centerline, up to 100' AGL/119' MSL. Multiple trees beginning 1485' from departure end of runway, 16' left of centerline, up to 100' AGL/119' MSL. **Rwy 29**, twin bridges 2.25 NM from departure end of runway, 2767' right of centerline, 410' AGL/410' MSL.

SUFFOLK, VA**SUFFOLK EXECUTIVE**

TAKE-OFF MINIMUMS: **Rwys 4, 7, 22**, 300-1. **Rwy 25**, 300-1 or std. w/ a min. climb of 260' per NM to 300. Alternatively, with standard takeoff minimums and a normal 200' /NM climb gradient, takeoff must occur no later than 1700' prior to departure end of runway.

NOTE: **Rwy 4**, trees 1050' from departure end of runway, 250' left of centerline, up to 100' AGL/169' MSL. Trees 1076' from departure end of runway, 105' left of centerline, up to 100' AGL/169' MSL. Powerline 1698' from departure end of runway, 825' right of centerline, 105' AGL/169' MSL. Powerline 3056' from departure end of runway, 524' right of centerline, 105' AGL/174' MSL. **Rwy 7**, trees 1143' from departure end of runway, 688' left of centerline, up to 100' AGL/169' MSL. Powerline 1211' from departure end of runway, 717' right of centerline, 105' AGL/169' MSL. Powerline 2176' from departure end of runway, 259' left of centerline, 105' AGL/169' MSL. Trees 2430' from departure end of runway, 118' right of centerline, up to 100' AGL/169' MSL. Powerline 3140' from departure end of runway, 1263' left of centerline, 105' AGL/174' MSL. **Rwy 22**, road 536' from departure end of runway, 62' left of centerline, 15' AGL/84' MSL. Trees 1403' from departure end of runway, 765' left of centerline, up to 100' AGL/169' MSL. Trees 3595' from departure end of runway, 792' right of centerline, up to 100' AGL/174' MSL. **Rwy 25**, road 198' from departure end of runway, 33' right of centerline, 15' AGL/89' MSL. Trees 805' from departure end of runway, 423' right of centerline, up to 100' AGL/169' MSL. Trees 3258' from departure end of runway, 57' right of centerline, up to 100' AGL/174' MSL.

TANGIER, VA**TANGIER ISLAND (TGI)****ORIG 09015 (FAA)**

NOTE: **Rwy 2**, vehicle on road 343' from departure end of runway, on centerline, 15' AGL/19' MSL. Boat masts 638' from departure end of runway, 632' right to 755' left of centerline, up to 63' MSL. **Rwy 20**, buildings beginning 7' from departure end of runway, 206' left of centerline, 45' AGL/50' MSL. Rock wall at departure end of runway, 57' right of centerline, 4' AGL/8' MSL.

TAPPAHANNOCK, VA**TAPPAHANNOCK-ESSEX COUNTY**

TAKE-OFF MINIMUMS: **Rwy 10**, 300-1½ or std. w/ min. climb of 303' per NM to 500. **Rwy 28**, 300-1 or std. w/ min. climb of 366' per NM to 500.

NOTE: **Rwy 10**, terrain 6' from departure end of runway, 20' left of centerline, up to 135' MSL. Terrain 29' from departure end of runway, 281' left of centerline, up to 139' MSL. **Rwy 28**, terrain beginning 12' from departure end of runway, 5' right of centerline, up to 151' MSL.

WALLOPS ISLAND, VA

WALLOPS FLIGHT FACILITY (WAL)

ORIG 09127 (FAA)

NOTE: **Rwy 4**, trees beginning 1254' from DER, 741' left of centerline, up to 100' AGL/109' MSL. Trees beginning 1814' from DER, 79' right of centerline, up to 100' AGL/134' MSL. **Rwy 10**, trees beginning 1252' from DER, 818' left of centerline, up to 100' AGL/124' MSL. **Rwy 17**, trees beginning 169' from DER, 218' left of centerline, up to 100' AGL/119' MSL. **Rwy 22**, trees beginning 793' from DER, 315' left of centerline, up to 100' AGL/129' MSL. **Rwy 28**, trees beginning 945' from DER, 495' right of centerline, up to 100' AGL/139' MSL. **Rwy 35**, trees beginning 3' from DER, 394' left of centerline, up to 100' AGL/124' MSL. Trees beginning 21' from DER, 219' right of centerline, up to 100' AGL/124' MSL.

WAKEFIELD, VA

WAKEFIELD MUNI

DEPARTURE PROCEDURE: Climb straight ahead to 500 before proceeding on course.

WARRENTON, VA

WARRENTON-FAUQUIER (HWY)

ORIG 09099 (FAA)

NOTE: **Rwy 15**, trees 436' from DER, 518' right of centerline, 100' AGL/439' MSL. Vehicle on road 647' from DER, 649' right of centerline, 15' AGL/354' MSL. Trees 1034' from DER, 763' left of centerline, 100' AGL/449' MSL. Trees 1924' from DER, 781' right of centerline, 100' AGL/459' MSL. Trees beginning 2239' from DER, 41' left of centerline, up to 100' AGL/459' MSL. **Rwy 33**, trees beginning 1272' from DER, 59' right of centerline, up to 41' AGL/370' MSL. Trees beginning 2610' from DER, 116' left of centerline, up to 74' AGL/413' MSL.

WASHINGTON, DC

RONALD REAGAN WASHINGTON

NATIONAL

TAKE-OFF MINIMUMS: **Rwy 22**, 400-2½ or std. with a min. climb of 210' per NM to 500. **Rwy 33**, 700-3 or std. with a min. climb of 260' per NM to 700. **Rwy 1**, 600-2 or std. with a min. climb of 370' per NM to 700.

DEPARTURE PROCEDURE: **Rwy 1**, left turn as soon as practicable, intercept DCA R-328. Climb to 5000 or as assigned. **Rwy 19**, climb heading 184° to 500 before turning right. **Rwy 33**, intercept DCA R-328. Climb to 5000 or as assigned.

NOTE: **Prohibited area, P-56, 1.5 NM north of airport.**

WASHINGTON DULLES INTL (IAD)

AMDT 1 08325 (FAA)

NOTE: **Rwy 1L**, tower 1918' from departure end of runway, 680' left of centerline, 56' AGL/330' MSL. **Rwy 1C**, tree 2814' from departure end of runway, 1030' left of centerline, 86' AGL/345' MSL. **Rwy 1R**, post 12' from departure end of runway, 223' right of centerline, 8' AGL/294' MSL. **Rwy 12**, tree 520' from departure end of runway, 604' left of centerline, 28' AGL/307' MSL. **Rwy 30**, trees beginning 161' from departure end of runway, 520' left of centerline, up to 57' AGL/396' MSL. Trees beginning 532' from departure end of runway, 600' right of centerline, up to 64' AGL/383' MSL.

WEST POINT, VA

MIDDLE PENINSULA RGNL (FYJ)

ORIG 08157 (FAA)

NOTE: **Rwy 10**, multiple trees beginning 86' from departure end of runway, left and right of centerline, up to 100' AGL/129' MSL. **Rwy 28**, multiple trees beginning 33' from departure end of runway, left and right of centerline, up to 100' AGL/119' MSL. Ship mast 3427' from departure end of runway, left and right of centerline, 135' AGL/135' MSL.

WESTMINSTER, MD

CARROLL COUNTY RGNL/JACK B. POAGE

FIELD

TAKE-OFF MINIMUMS: **Rwy 16**, 400-1 or std. with a min. climb of 210' per NM to 1300. **Rwy 34**, 300-1 or std. with a min. climb of 320' per NM to 1000.

NOTE: **Rwy 16**, 87' AGL trees 644' from departure end of runway. **Rwy 34**, 102' AGL trees 116' from departure end of runway, 220' right of centerline.

CLEARVIEW AIRPARK (2W2)

ORIG 09239 (FAA)

TAKE-OFF MINIMUMS: **Rwy 32**, 300-2¼ or std. w/ min. climb of 290' per NM to 1200.

NOTE: **Rwy 14**, vehicles and aircraft on road/taxiway 14' from DER, 47' right to left of centerline, 15' AGL/834' MSL. Trees beginning 35' from DER, 200' left of centerline, up to 100' AGL/939' MSL. Trees beginning 21' from DER, 90' right of centerline, up to 100' AGL/919' MSL. **Rwy 32**, vehicle on road 191' from DER, 516' left of centerline, 15' AGL/774' MSL. Trees beginning 8' from DER, 24' left of centerline, up to 100' AGL/959' MSL. Trees beginning 60' from DER, 50' right of centerline, up to 100' AGL/859' MSL.

WILLIAMSBURG, VA

WILLIAMSBURG-JAMESTOWN

TAKE-OFF MINIMUMS: **Rwy 31**, 300-1.

WILMINGTON, DE

NEW CASTLE

TAKE-OFF MINIMUMS: **Rwy 19**, 300-1 or std. w/ min. climb of 266' per NM to 300.

NOTE: **Rwy 1**, multiple trees beginning 751' from departure end of runway, 32' left of centerline, up to 59' AGL/120' MSL, tree 1219' from departure end of runway, 482' right of centerline, 57' AGL/118' MSL, bush 118' from departure end of runway, 385' left of centerline, 4' AGL/65' MSL. **Rwy 9**, multiple trees beginning 1229' from departure end of runway, 30' right of centerline up to 62' AGL/133' MSL, tree 975' from departure end of runway, 66' left of centerline, 53' AGL/124' MSL, light pole 948' from departure end of runway, 596' right of centerline, 44' AGL/115' MSL, tree 1740' from departure end of runway, 458' left of centerline, 83' AGL/134' MSL, light pole 945' from departure end of runway, 316' right of centerline, 38' AGL/109' MSL, rod on building 916' from departure end of runway, 457' left of centerline, 29' AGL/100' MSL. **Rwy 14**, obstacle light 553' from departure end of runway, 440' left of centerline, 29' AGL/103' MSL, rod on obstacle light 606' from departure end of runway, 615' left of centerline, 19' AGL/93' MSL. **Rwy 19**, antenna on obstruction light tower 4469' from departure end of runway, 1684' right of centerline, 153' AGL/228' MSL, tree 1575' from departure end of runway, 850' right of centerline, 45' AGL/120' MSL, obstruction light on sign 971' from departure end of runway, 448' left of centerline, 28' AGL/103' MSL. **Rwy 27**, tree 697' from departure end of runway, 533' left of centerline, 68' AGL/147' MSL. Tree 1110' from departure end of runway, 584' right of centerline, 38' AGL/117' MSL, pole 793' from departure end of runway, 615' right of centerline, 28' AGL/107' MSL, bush 408' from departure end of runway, 415' left of centerline, 12' AGL/91' MSL. **Rwy 32**, tree 711' from departure end of runway, 207' right of centerline, 29' AGL/104' MSL, tree 1162' from departure end of runway, 83' right of centerline, 32' AGL/107' MSL.

WINCHESTER, VA

WINCHESTER RGNL

TAKE-OFF MINIMUMS: **Rwy 32**, 800-2 or std. with a min. climb of 210' per NM to 1700.

DEPARTURE PROCEDURE: **Rwy 32**, climb runway heading to 1700 before turning on course.

WISE, VA

LONESOME PINE

TAKE-OFF MINIMUMS: **Rwy 24**, 1800-3 or std. with a min. climb of 400' per NM to 4700.

DEPARTURE PROCEDURE: **Rwy 6**, climb on runway heading to 3800 before proceeding on course.

Rwy 24, climb on runway heading to 4500 before proceeding on course.

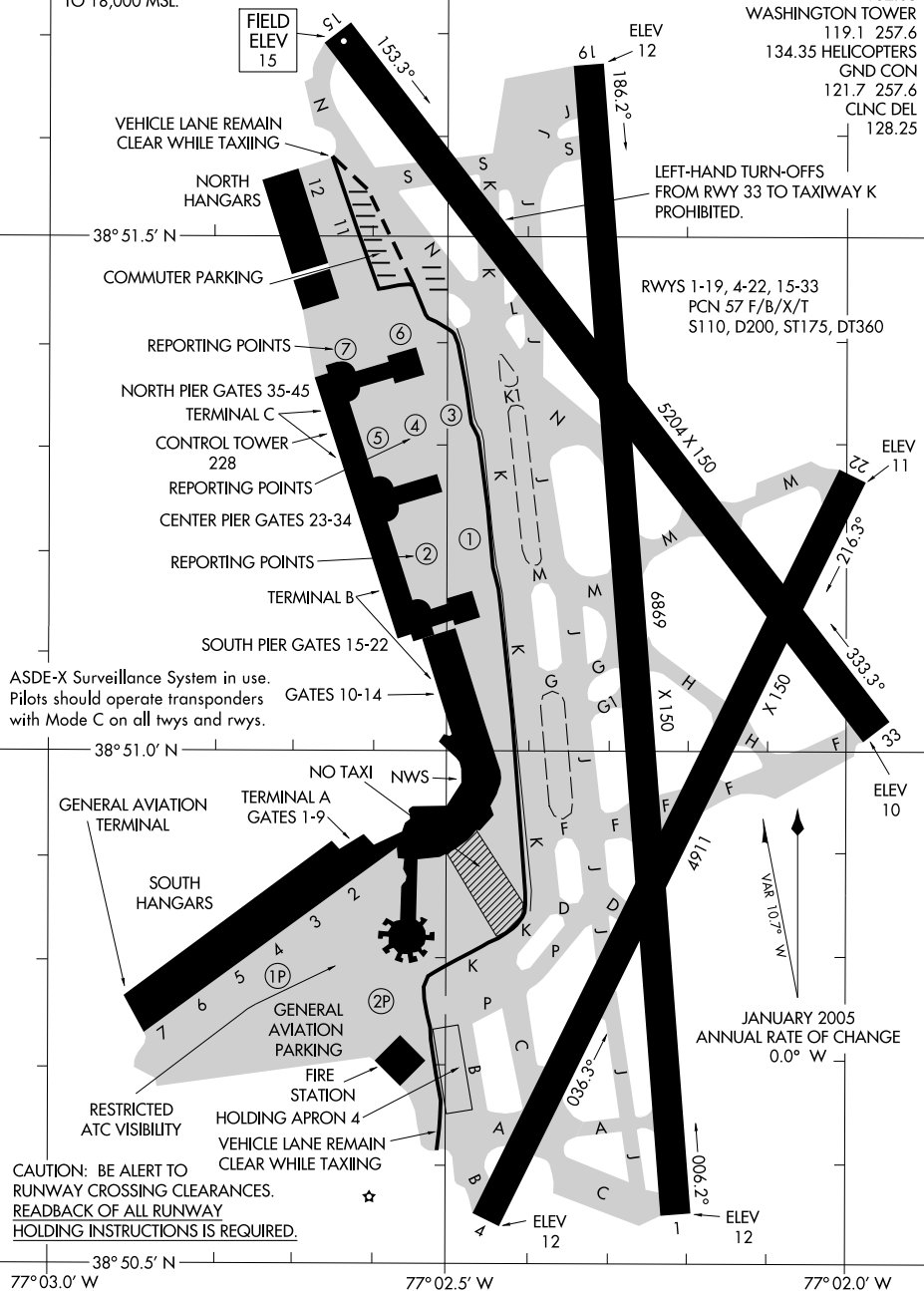
AIRPORT DIAGRAM

AL-443 (FAA)

WASHINGTON, D.C.

NOTE: PROHIBITED AREA (P-56) 1.5 NM NORTH OF DCA - AVOID SURFACE TO 18,000 MSL.

ATIS
132.65
WASHINGTON TOWER
119.1 257.6
134.35 HELICOPTERS
GND CON
121.7 257.6
CLNC DEL
128.25

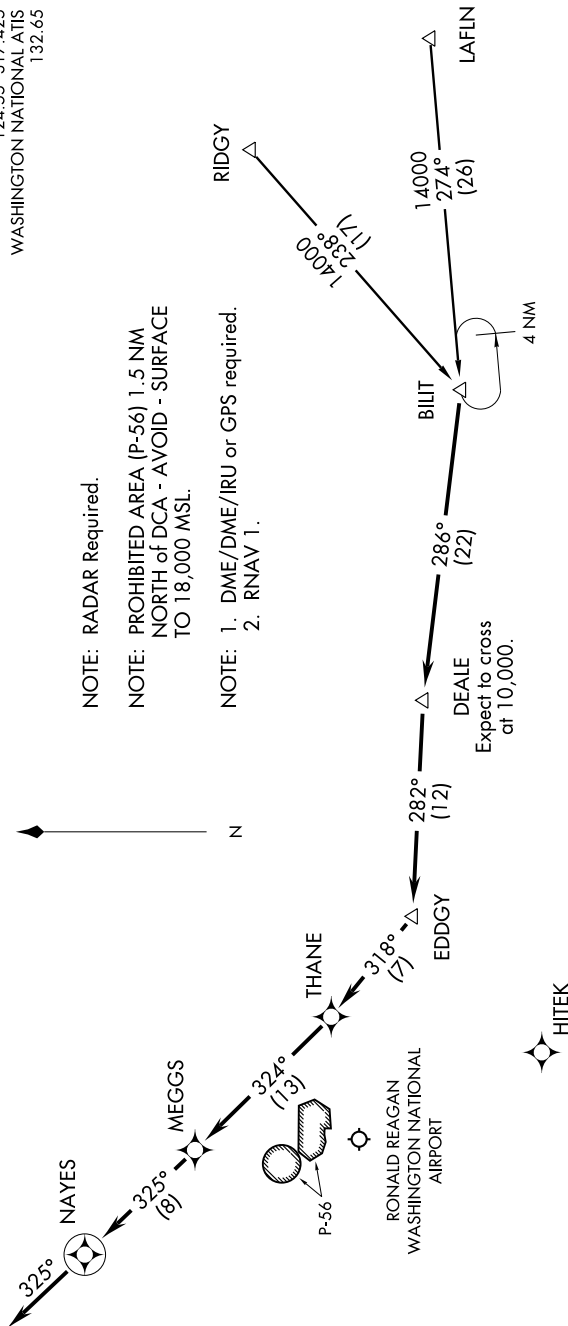


NE-3, 14 JAN 2010 to 11 FEB 2010

BILIT ONE ARRIVAL (RNAV)

WASHINGTON/ RONALD REAGAN WASHINGTON NATIONAL
WASHINGTON, DCPOTOMAC APP CON
124.55 317.425
WASHINGTON NATIONAL ATIS
132.65

NOTE: RADAR Required.

NOTE: PROHIBITED AREA (P-56) 1.5 NM
NORTH of DCA - AVOID - SURFACE
TO 18,000 MSL.NOTE: 1. DME/DME/IRU or GPS required.
2. RNAV 1.

ARRIVAL ROUTE DESCRIPTION

LAFIN TRANSITION (LAFIN.BILIT1):RIDGY TRANSITION (RIDGY.BILIT1):... From BILIT WP via 286° track to DEALE WP, thence as depicted to NAYES WP,
depart NAYES WP heading 325° for vectors to final approach course.

LANDING RWY 1: After EDDGY WP, expect radar vectors to final approach course.

LANDING RWY 19: Depart NAYES WP heading 325° for vectors to final approach course.

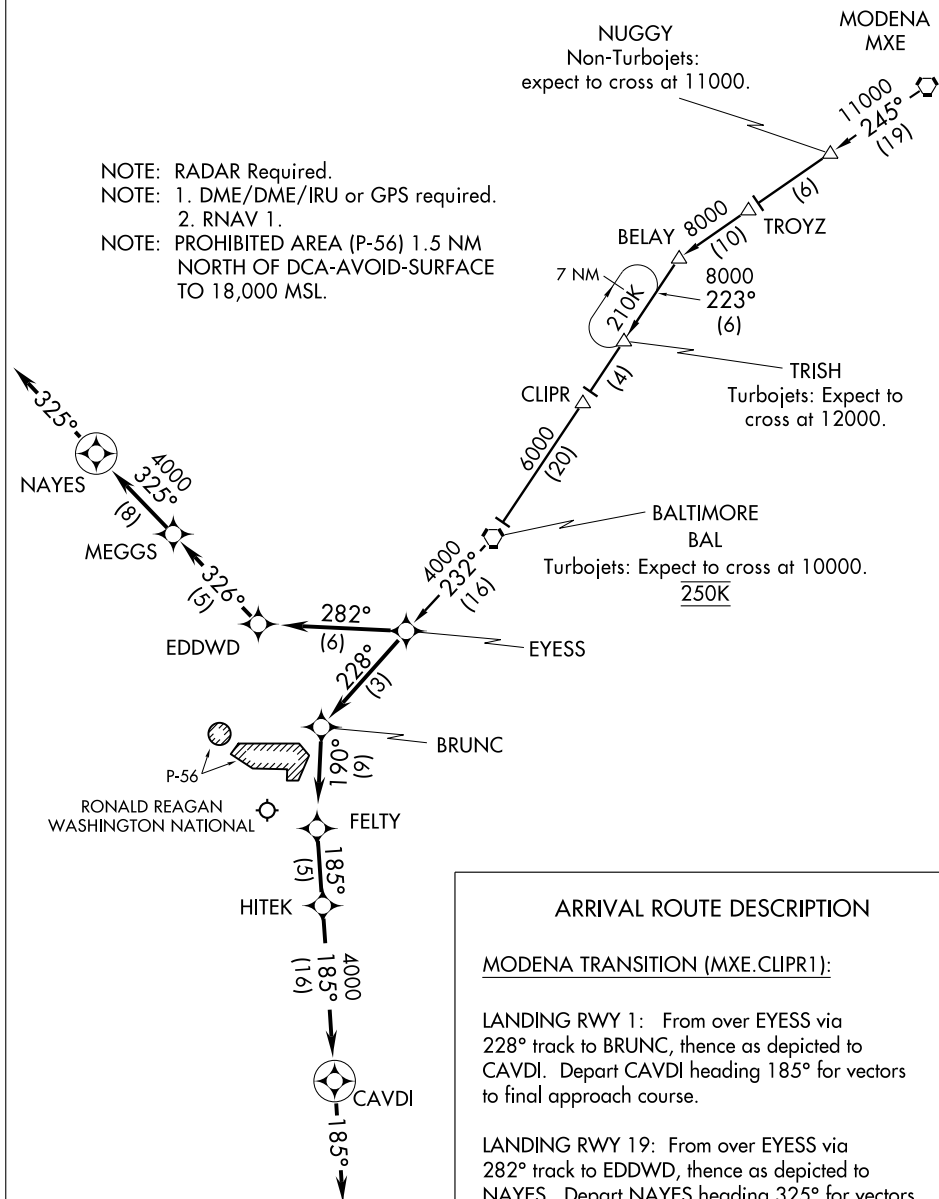
NOTE: Chart not to scale

CLIPR ONE ARRIVAL (RNAV)

WASHINGTON/ RONALD REAGAN WASHINGTON NATIONAL
WASHINGTON, DC

POTOMAC APP CON
128.7 307.9
WASHINGTON NATIONAL ATIS
132.65

- NOTE: RADAR Required.
NOTE: 1. DME/DME/IRU or GPS required.
2. RNAV 1.
NOTE: PROHIBITED AREA (P-56) 1.5 NM
NORTH OF DCA-AVOID-SURFACE
TO 18,000 MSL.



ARRIVAL ROUTE DESCRIPTION

MODENA TRANSITION (MXE.CLIPR1):

LANDING RWY 1: From over EYESS via 228° track to BRUNC, thence as depicted to CAVDI. Depart CAVDI heading 185° for vectors to final approach course.

LANDING RWY 19: From over EYESS via 282° track to EDDWD, thence as depicted to NAYES. Depart NAYES heading 325° for vectors to final approach course..

NOTE: Chart not to scale.

LOC/DME I-DCA 109.9 Chan 36	APP CRS 007°	Rwy Idg 6869 TDZE 15 Apt Elev 16
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COPTER ILS or LOC RWY 1
WASHINGTON/RONALD REAGAN WASHINGTON NATIONAL (DCA)

A NA Use I-DCA DME when on the LOC course.
Radio altimeter required.

ALSF-2

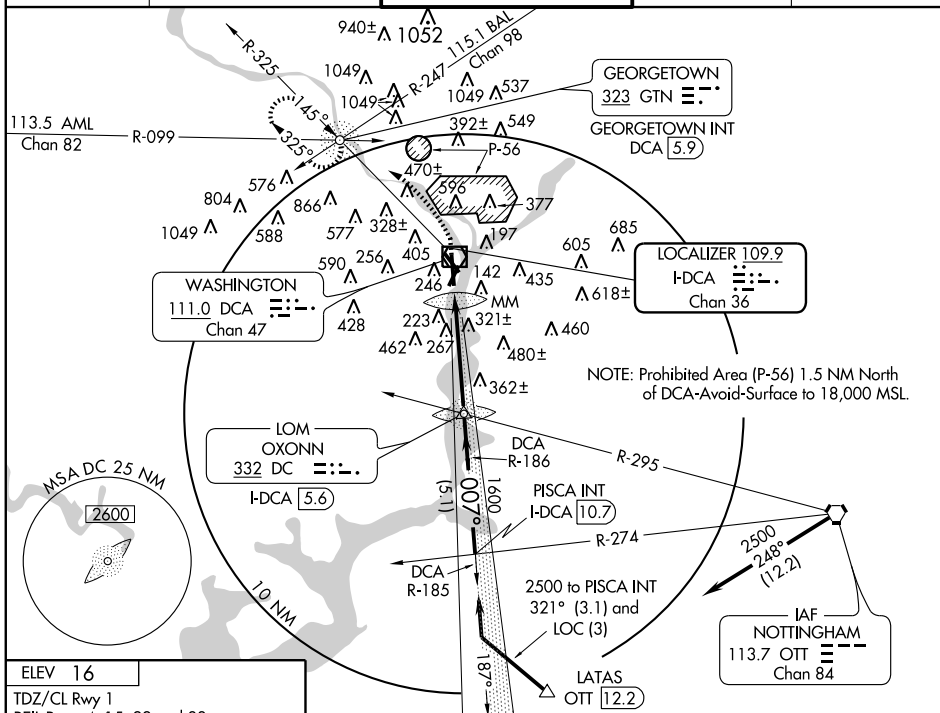
MISSED APPROACH: Climb to 500, then climbing left turn to 2100 via DCA R-325 to GTN NDB/Int/DCA 5.9 DME and hold.

ATIS
132.65

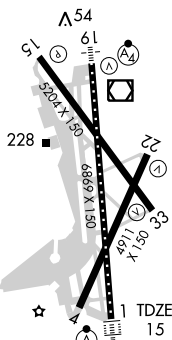
POTOMAC APP CON
124.7 338.2

WASHINGTON TOWER
119.1 257.6

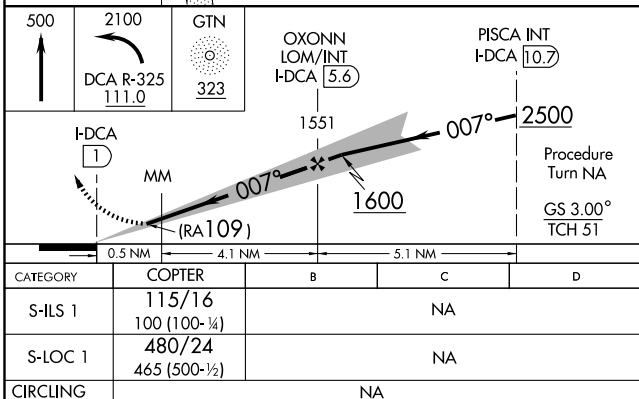
GND CON
121.7 257.6

CLNC DEL
128.25

ELEV 16
TDZ/CL Rwy 1
REIL Rwy 4, 15, 22 and 33
HIRL Rwy 1-19 and 15-33
MIRL Rwy 4-22



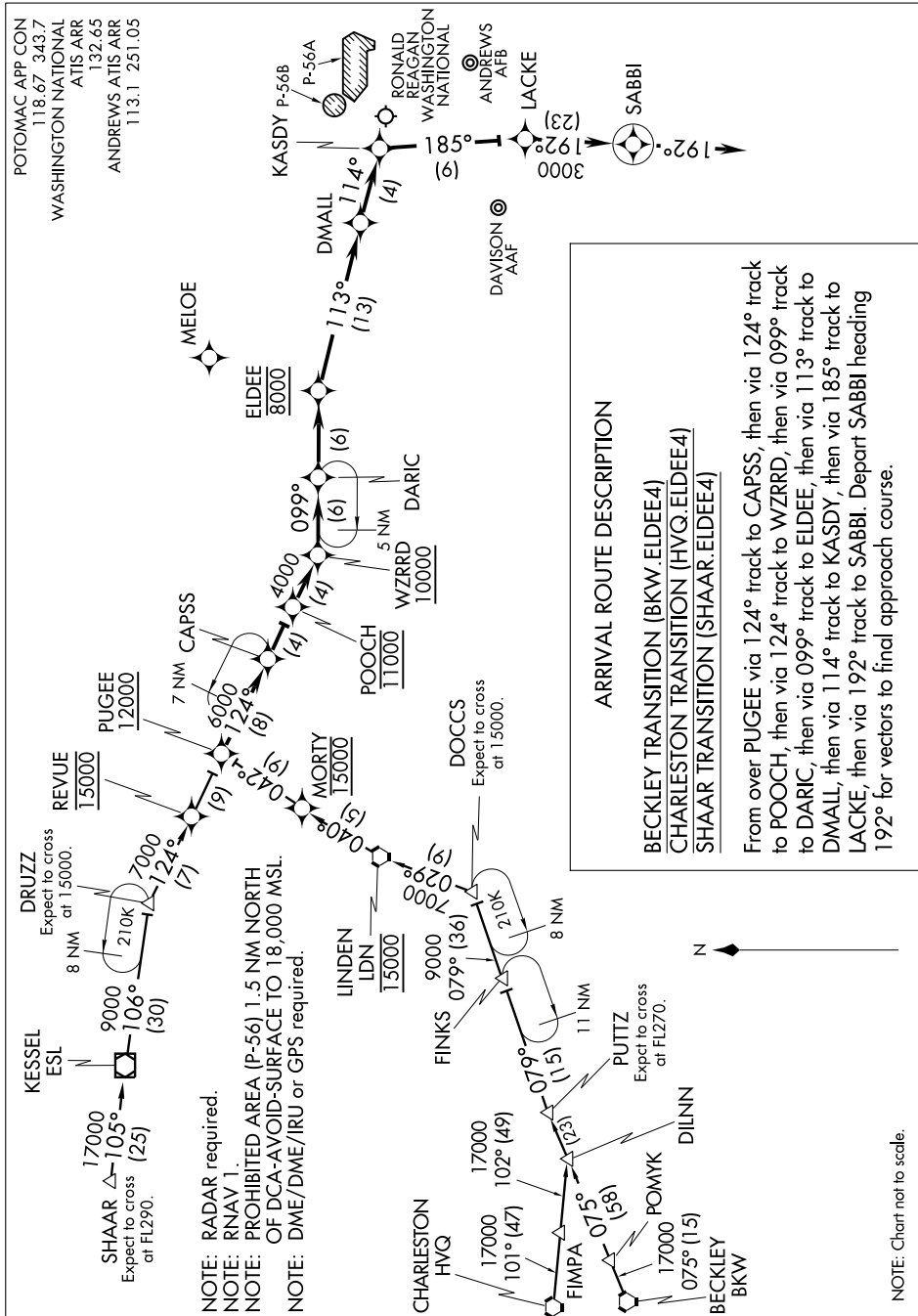
007° 4.6 NM
from EAF



**COPTER ILS CATEGORY II - SPECIAL AIRCREW
& AIRCRAFT CERTIFICATION REQUIRED**

ELDEE FOUR ARRIVAL (RNAV)

WASHINGTON, DC



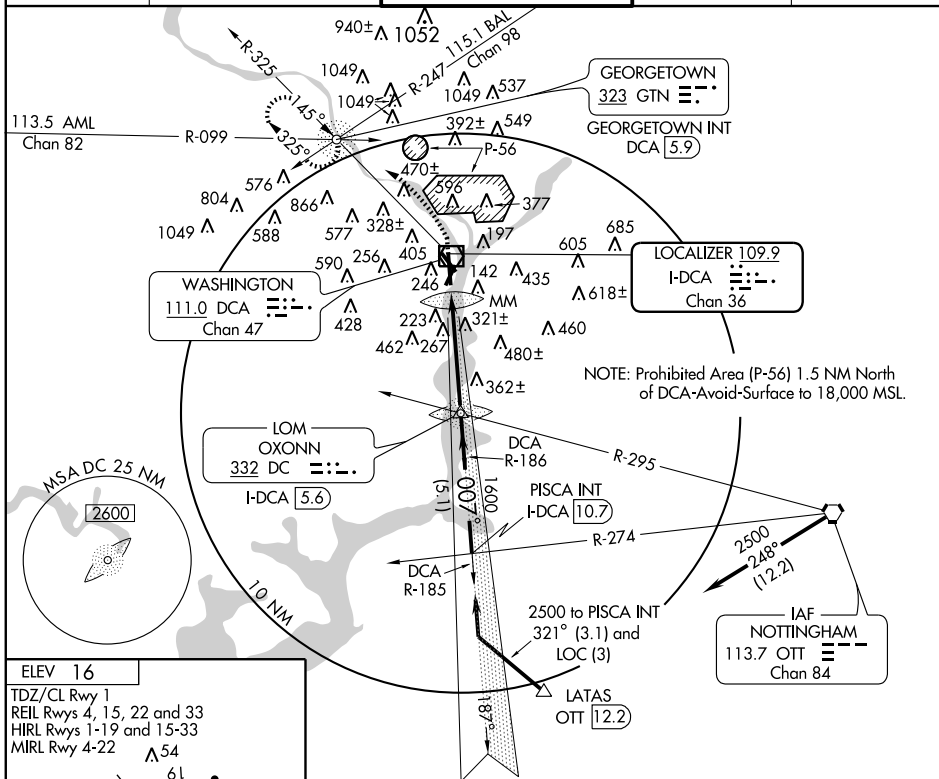
LOC/DME I-DCA	APP CRS	Rwy Idg	6869
109.9	007°	TDZE	15
Chan 36		Apt Elev	16

WASHINGTON/RONALD REAGAN WASHINGTON NATIONAL (DCA)

ILS RWY 1

⚠ Circling Cat C and D not authorized northeast of Rwy 15-33. Use I-DCA DME when on the LOC course.	ALSIF-2	MISSED APPROACH: Climb to 500, then climbing left turn to 2000 via DCA R-325 to GTN NDB/Int/DCA 5.9 DME and hold.
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ATIS 132.65	POTOMAC APP CON 124.7 338.2	WASHINGTON TOWER 119.1 257.6	GND CON 121.7 257.6	CLNC DEL 128.25
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ELEV 16
TDZ/CL Rwy 1
REIL Rws 4, 15, 22 and 33
HIRL Rws 1-19 and 15-33
MIRL Rwy 4-22
007° 4.6 NM from FAF
FAF to MAP 4.6 NM
Knots 60 90 120 150 180
Min:Sec 4:36 3:04 2:18 1:50 1:32

500	2000	GTN	OXONN LOM/INT I-DCA 5.6	PISCA INT I-DCA 10.7
DCA R-325 111.0		323		
I-DCA 1	MM	1551	007°	2500
		1600		
0.5	4.1 NM	5.1 NM		
CATEGORY	A	B	C	D
S-ILS 1	215/18 200 (200-½)			
S-LOC 1	480/24	465 (500-½)	480/40	480/50
			465 (500-¾)	465 (500-1)
CIRCUING	620-1	660-1	660-1¾	700-2 ¼
	604 (700-1)	644 (700-1)	644 (700-1¾)	684 (700-2 ¼)

WASHINGTON, DC

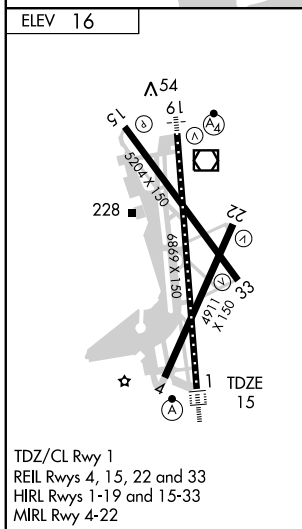
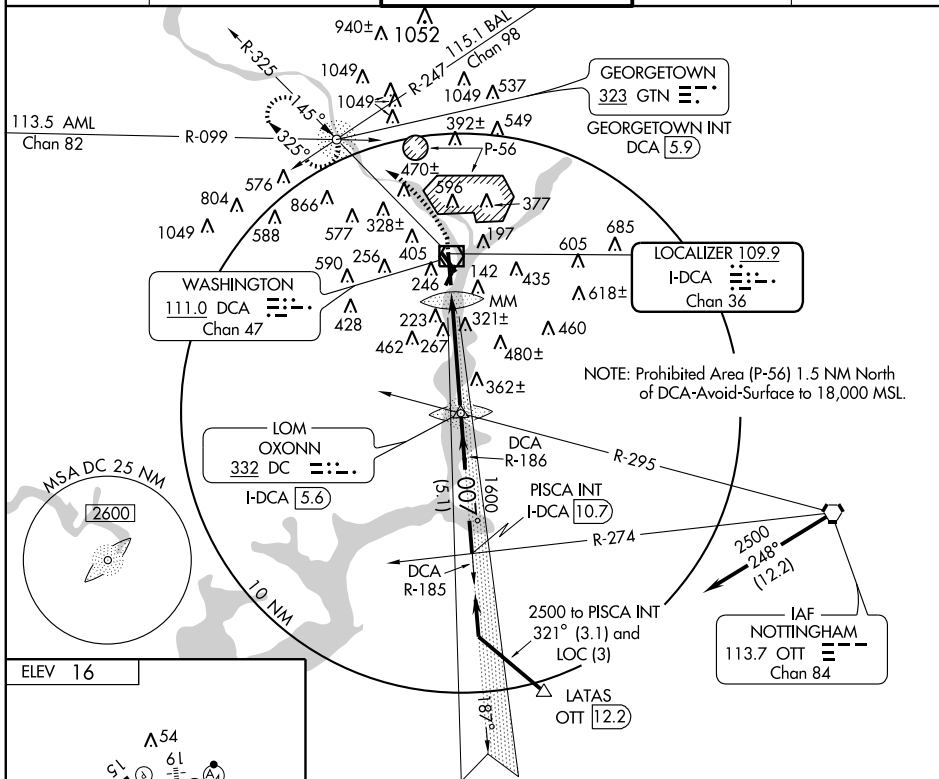
AL-443 (FAA)

LOC/DME I-DCA 109.9 Chan 36	APP CRS 007°	Rwy Idg 6869 TDZE 15 Apt Elev 16
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ILS RWY 1 (CAT II)

WASHINGTON/ RONALD REAGAN WASHINGTON NATIONAL (DCA)

Use I-DCA DME when on the LOC course.		ALSF-2 	MISSED APPROACH: Climb to 500, then climbing left turn to 2000 via DCA R-325 to GTN NDB/Int/DCA 5.9 DME and hold.	
ATIS 132.65	POTOMAC APP CON 124.7 338.2	WASHINGTON TOWER 119.1 257.6	GND CON 121.7 257.6	CLNC DEL 128.25



500 ↑	2000 ↶ DCA R-325 111.0	GTN  323	OXONN LOM/INT I-DCA 5.6	PISCA INT I-DCA 10.7

NE-3, 14 JAN 2010 to 11 FEB 2010

IRONS FOUR ARRIVAL

WASHINGTON, DC

POTOMAC APP CON

119.85 322.3 (DCA ARRIVALS ONLY)

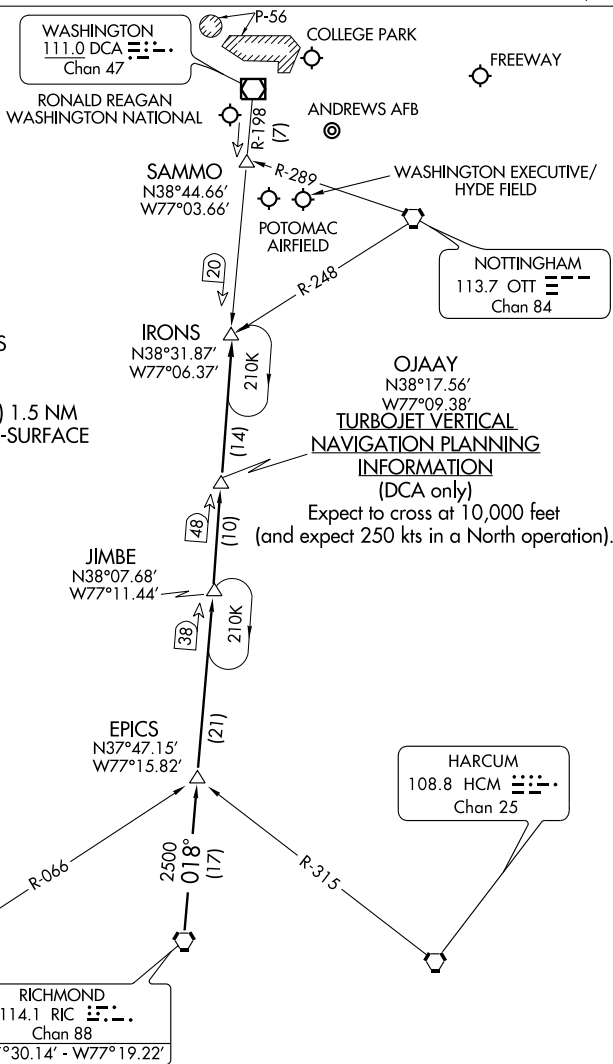
128.35 270.275 (ADW ARRIVALS ONLY)

ANDREWS AFB ATIS

113.1 251.05

WASHINGTON NATIONAL ATIS

132.65



NE-3, 14 JAN 2010 to 11 FEB 2010

RICHMOND TRANSITION (RIC.IRONS4): From over RIC VORTAC via RIC R-018 and DCA R-198 to IRONS INT. Thence. . .

. . . From over IRONS INT:

Ronald Reagan Washington National Airport (DCA only):

LANDING SOUTH: Then via DCA R-198 to SAMMO INT, heading for vectors to the final approach course.

LANDING NORTH: Expect vectors to final approach course.

All other airports: Expect vectors.

LOC/DME I-VVWH 108.5 Chan 22	APP CRS 145°	Rwy Idg 6869 TDZE 14 Apt Elev 16
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LDA/DME RWY 19
WASHINGTON/RONALD REAGAN WASHINGTON NATIONAL (DCA)

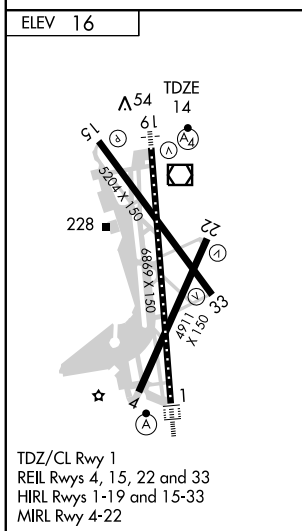
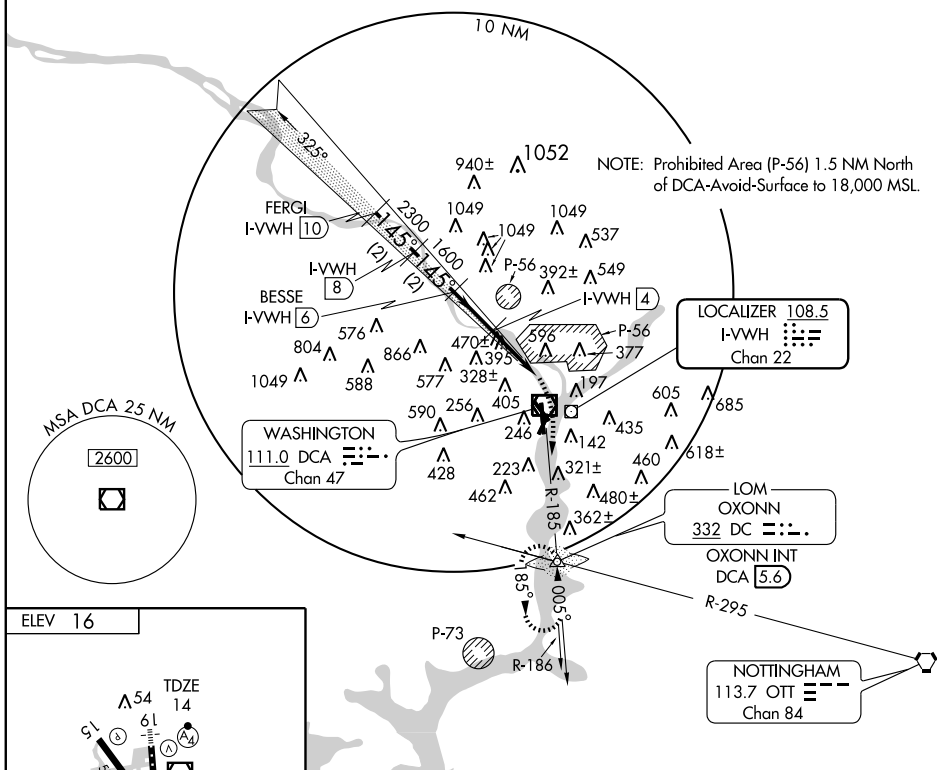
- ▼** Inoperative table does not apply.
▲ Circling Cats C and D not authorized northeast of Rwy 15-33.

MALSF
A4

MISSED APPROACH: Climbing right turn to 1800 via DCA R-185 to OXONN LOM/Int/DCA 5.6 DME and hold.

ATIS 132.65	POTOMAC APP CON 124.7 338.2	WASHINGTON TOWER 119.1 257.6	GND CON 121.7 257.6	CLNC DEL 128.25
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RADAR REQUIRED



	FERGIE I-VVWH 10	BESSE I-VVWH 6	I-VVWH 4	I-VVWH 1.6	1800 DCA R-185 111.0	DC 332
	* 3000	2300	1600	1000		
	* 2000 when directed by ATC.					
	2 NM		2 NM		2.4 NM	
CATEGORY	A		B		C	
S-LDA 19	720/60		706 (800-1¼)		720-2 706 (800-2)	
CIRCLING	720-1¼		704 (800-1¼)		720-2 704 (800-2)	
					720-2¼ 706 (800-2¼)	
					720-2¼ 704 (800-2¼)	

MOUNT VERNON VISUAL RUNWAY 1

WASHINGTON/ RONALD REAGAN WASHINGTON NATIONAL (DCA)
AL-443 (FAA) WASHINGTON, DC

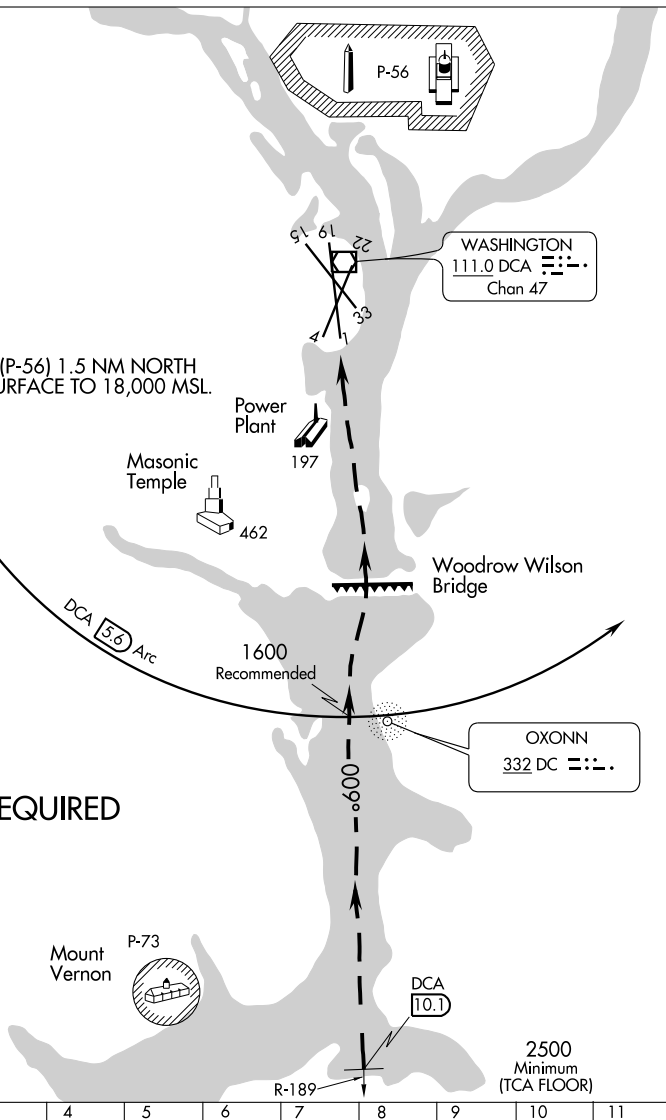
ATIS 132.65
POTOMAC APP CON
124.7 338.2
WASHINGTON TOWER
119.1 257.6
GRN CON
121.7 257.6
CLNIC DEL
128.25
AWOS-3
128.8

NOTE: PROHIBITED AREA (P-56) 1.5 NM NORTH
OF DCA-AVOID-SURFACE TO 18,000 MSL.

RADAR REQUIRED

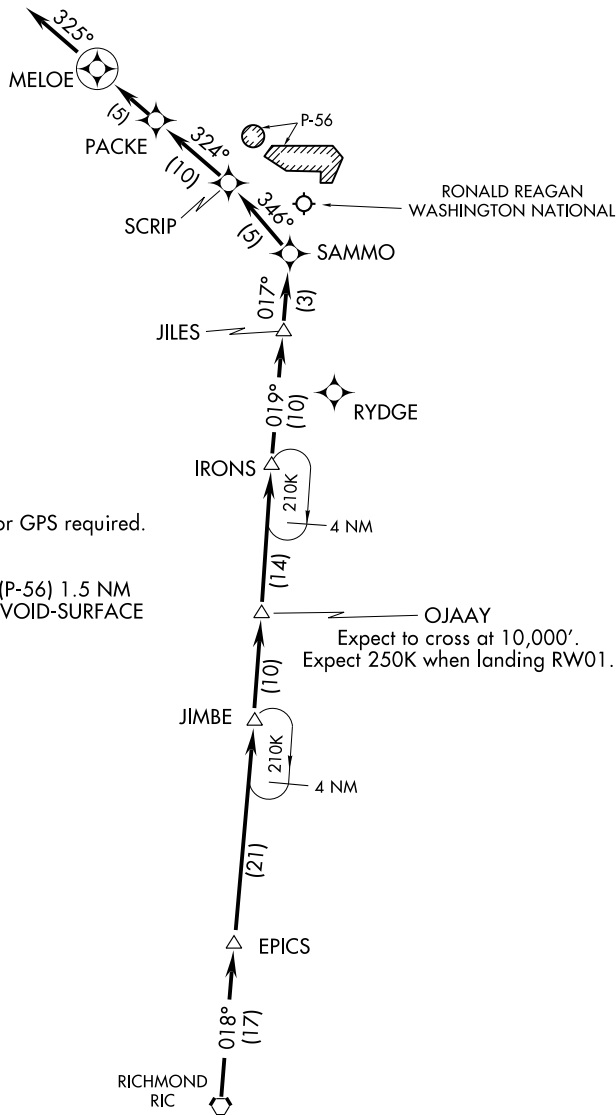
Vertical Guidance
Navaid and Angle:
I-DCA 3°

Weather Minimums: 3000
feet ceiling and 4 mile
visibility.



Aircraft may proceed via DCA VOR/DME R-189 (009° inbound) to DCA 5.6 DME, then follow the Potomac River to the airport.

POTOMAC APP CON
 119.85 322.3
 WASHINGTON NATIONAL ATIS
 132.65



NOTE: RADAR Required.

NOTE: 1. DME/DME/IRU or GPS required.
 2. RNAV 1.

NOTE: PROHIBITED AREA (P-56) 1.5 NM
 NORTH OF DCA-AVOID-SURFACE
 TO 18,000 MSL.

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

From RIC VORTAC via 018° track to EPICS WP, thence as depicted to MELOE WP, depart MELOE WP heading 325° for vectors to final approach course.

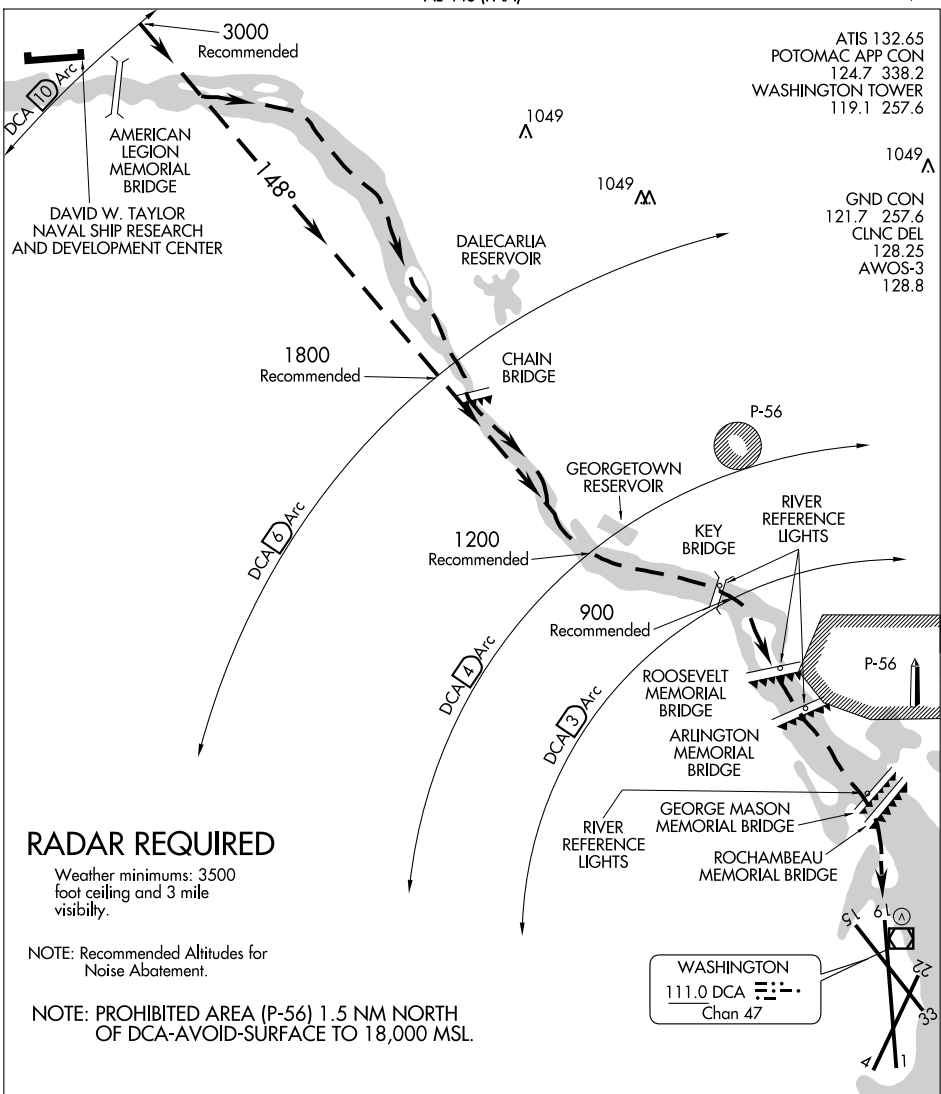
LANDING RWY 1: After IRONS, expect radar vectors to final approach course.

LANDING RWY 19: Depart MELOE WP heading 325° for vectors to final approach

RIVER VISUAL RWY 19

WASHINGTON/ RONALD REAGAN NATIONAL (DCA)
AL-443 (FAA)

WASHINGTON, DC



RIVER VISUAL RWY 19

Aircraft may visually follow the river to the airport, or may proceed via the DCA VOR/DME R-328 (148° inbound) or via the Rosslyn LDA Rwy 19 Approach to abeam Georgetown Reservoir or the DCA 4 NM DME fix, then follow the river to the airport.

NOTE: Clearance for visual approach does not authorize penetration of P-56.

WAAS CH 90123 W33A	APP CRS 332°	Rwy Idg TDZE Apt Elev	5204 13 15
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WASHINGTON/ RONALD REAGAN WASHINGTON NATIONAL (DCA)

RNAV (GPS) RWY 33

V Circling NA for Cats C and D northeast of Rwy 15-33.
A DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 2100 direct LISIY and via 325° track to GTN NDB and hold.

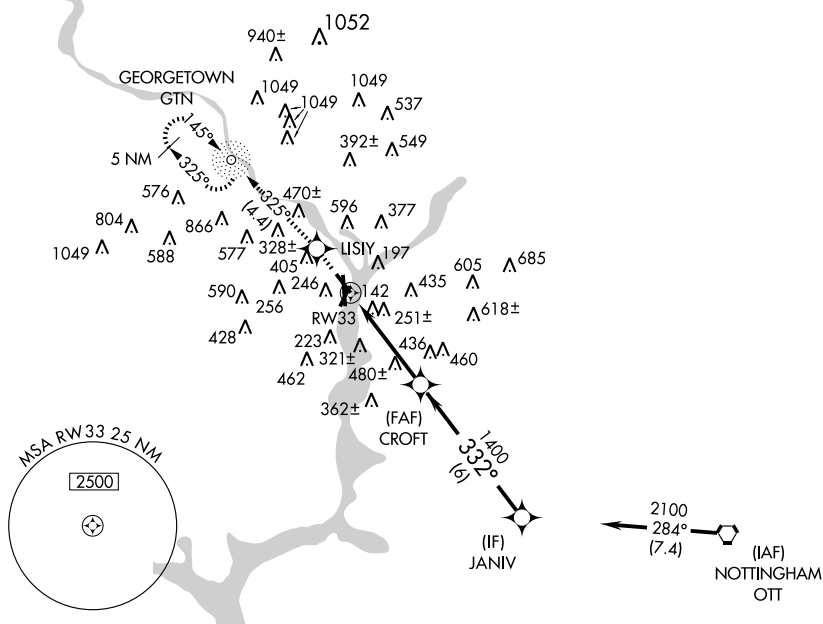
ATIS
132.65

POTOMAC APP CON
124.7 338.2

WASHINGTON TOWER
119.1 257.6

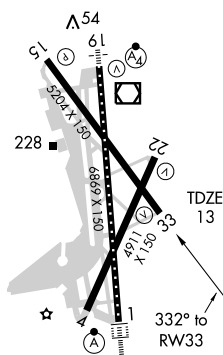
GND CON
121.7 257.6

CLNC DEL
128.25



NE-3, 14 JAN 2010 to 11 FEB 2010

ELEV **15**



TDZ/CL Rwy 1
 REIL Rwys 4, 15, 22 and 33
 HIRL Rwys 1-19 and 15-33
 MIRL Rwy 4-22

	2100	LISIY	GTN	
	↑	325° TRK		
				JANIV
			CROFT	2100
				Procedure Turn NA
				GS 3.00° TCH 55
CATEGORY	A	B	C	D
LPV DA	269-¾ 256 (300-¾)			
LNAV/VNAV DA	760-2½ 747 (800-2½)			
LNAV MDA	700-1	687 (700-1)	700-2	700-2½
			687 (700-2)	687 (700-2½)
CIRCLING	760-2½ 745 (800-2½)			

APP CRS	Rwy Idg	6869
005°	TDZE	14
	Apt Elev	15

RNAV (RNP) RWY 1

WASHINGTON/ RONALD REAGAN WASHINGTON NATIONAL (DCA)

RF and GPS Required. For uncompensated Baro-VNAV systems, procedure NA below -5°C (23°F) or above 40°C (104°F). Missed approach requires RNP less than 1.0. For inoperative ALSF, increase RNP 0.30 visibility to RVR 6000.

ALSF-2



MISSED APPROACH: Climb to 2100 via left turn to FIVUD, and 325° track to HESLO, and 325° track to GTN NDB and hold.

ATIS	POTOMAC APP CON	WASHINGTON TOWER	GND CON	CLNC DEL
132.65	124.7 338.2	119.1 257.6	121.7 257.6	128.25

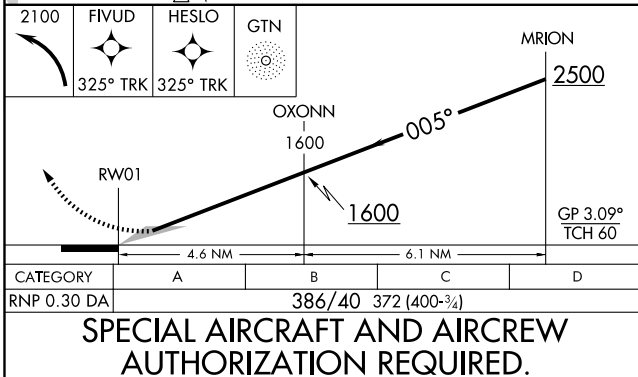
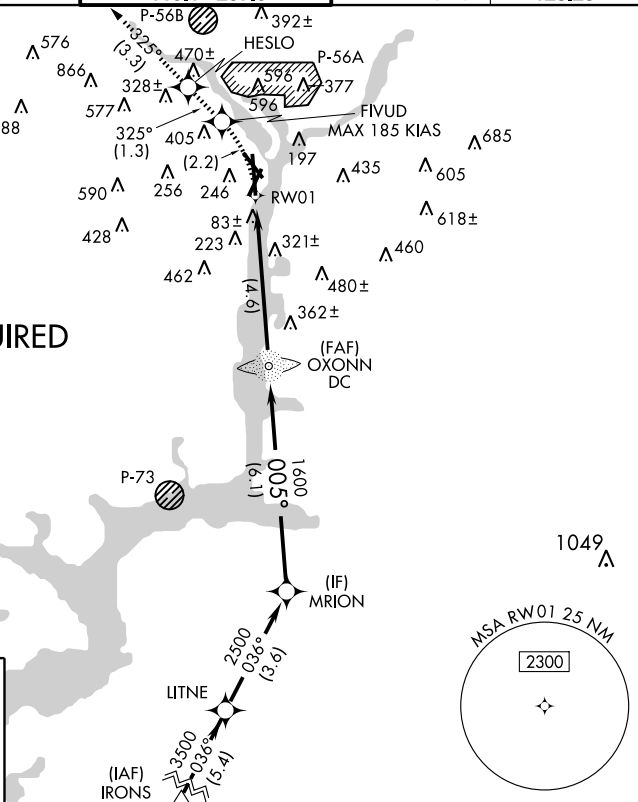
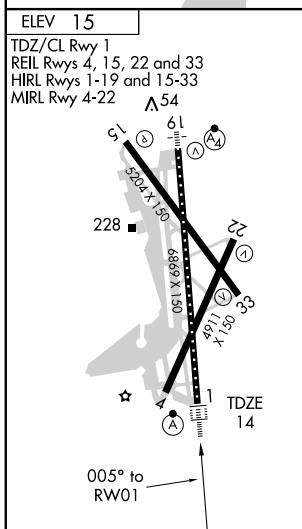
MISSSED APCH FIX

5 NM

GEORGETOWN GTN

RADAR REQUIRED

NOTE: PROHIBITED AREA (P56)
1.5 NM NORTH OF DCA - AVOID
SURFACE TO 18,000 MSL.



APP CRS 184°	Rwy Idg TDZE Apt Elev	6869 13 15
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RNAV (RNP) RWY 19

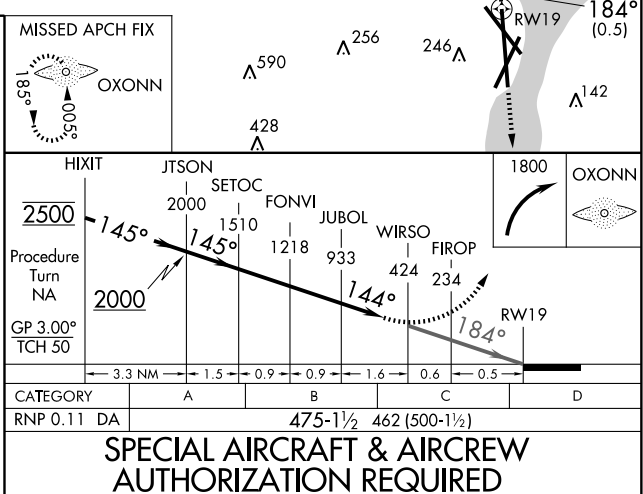
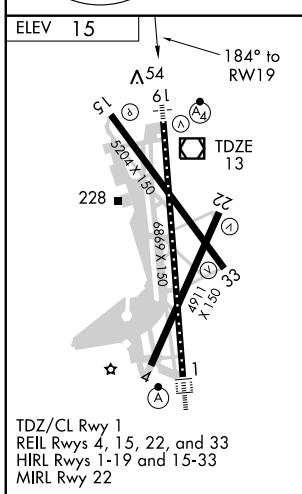
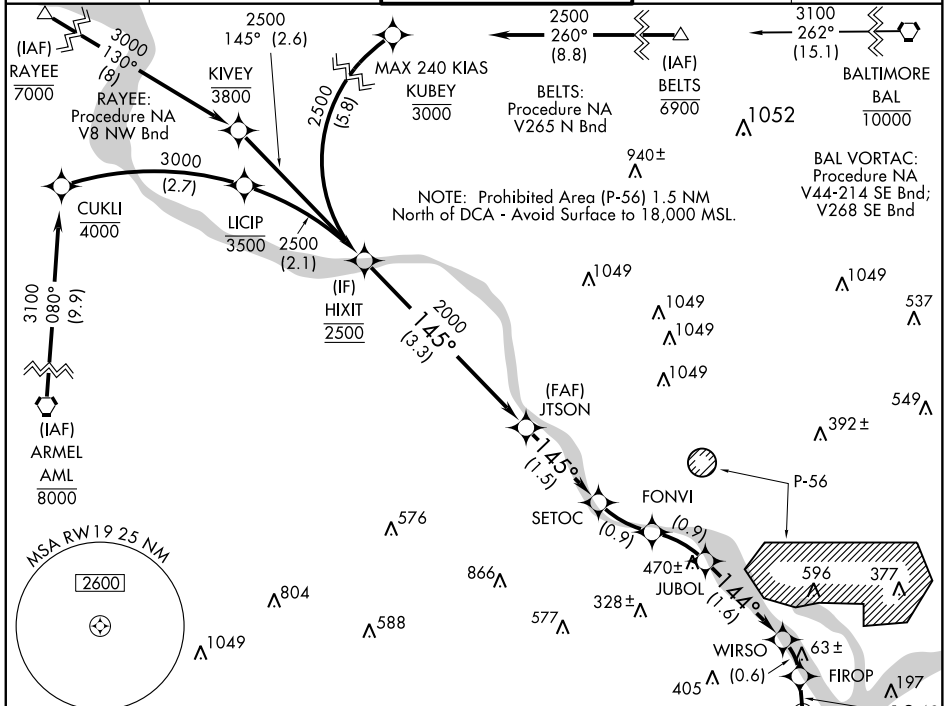
WASHINGTON/ RONALD REAGAN WASHINGTON NATIONAL (DCA)

▼ RF, GPS, and RADAR REQUIRED. For uncompensated Baro-VNAV systems, Procedure NA below -11°C (12°F) or above 49°C (120°F). Inoperative table does not apply. When East Side VGSJ inop, Procedure NA.

MALSF

MISSED APPROACH: Climbing right turn to 1800 direct OXONN and hold.

ATIS	POTOMAC APP CON	WASHINGTON TOWER	GND CON	CLNC DEL
132.65	124.7 338.2	119.1 257.6	121.7 257.6	128.25



NE-3 14 JAN 2010 to 11 FEB 2010

LOC/DME I-ASO	APP CRS	Rwy Idg
109.9	147°	6869
Chan 36	TDZE	14
	Apt Elev	16

WASHINGTON/RONALD REAGAN WASHINGTON NATIONAL (DCA)

ROSSLYN LDA RWY 19

- ▼ Glide slope provided by standard glide slope equipment.
 ▲ Inoperative table does not apply.
 ▲ Circling Cats C and D not authorized northeast Rwy 15-33.

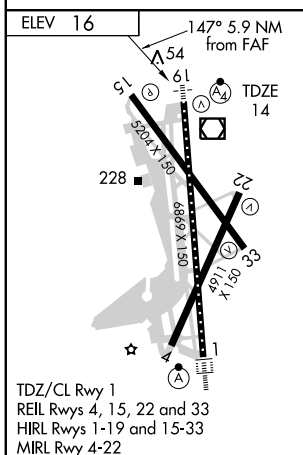
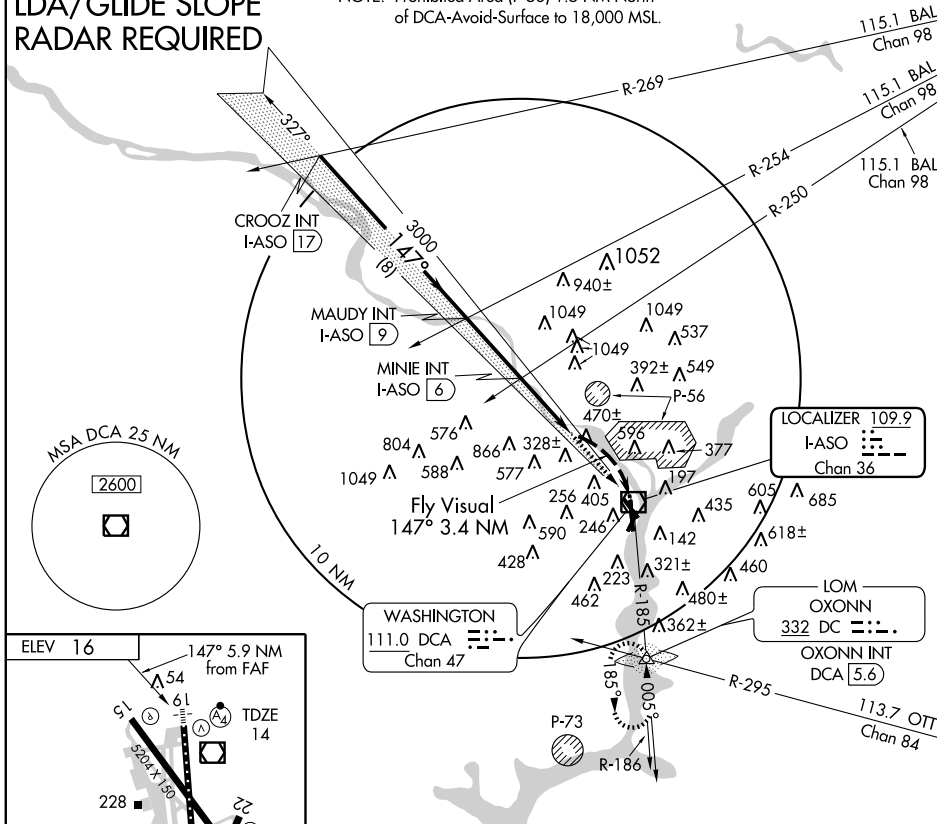
MALSF
 =

MISSED APPROACH: Climb to 1800 direct DCA
 VOR/DME and R-185 to OXONN LOM/Int/DCA
 5.6 DME and hold.

ATIS	POTOMAC APP CON	WASHINGTON TOWER	GND CON	CLNC DEL
132.65	124.7 338.2	119.1 257.6	121.7 257.6	128.25

LDA/GLIDE SLOPE
RADAR REQUIRED

NOTE: Prohibited Area (P-56) 1.5 NM North
 of DCA-Avoid-Surface to 18,000 MSL.



TDZ/CL Rwy 1
 REIL Rws 4, 15, 22 and 33
 HIRL Rws 1-19 and 15-33
 MIRL Rwy 4-22

FAF to MAP 2.5 NM					
Knots	60	90	120	150	180
Min:Sec	2:30	1:40	1:15	1:00	0:50

CROOZ INT I-ASO 17	MAUDY INT I-ASO 9	MINIE INT I-ASO 6	1800	DC
GS NA below 1100 feet.	2894	1899	DCA R-185 111.0	332
3000	*3000	2000	I-ASO 3.5	
GS 3.00°	147°	147°	Fly Visual	
	8 NM	3 NM	2.5 NM	3.4 NM
CATEGORY	A	B	C	D
S-LDA/GS 19		1100-3	1086 (1100-3)	
S-LDA 19		1100-3	1086 (1100-3)	
CIRCLING		1100-3	1084 (1100-3)	

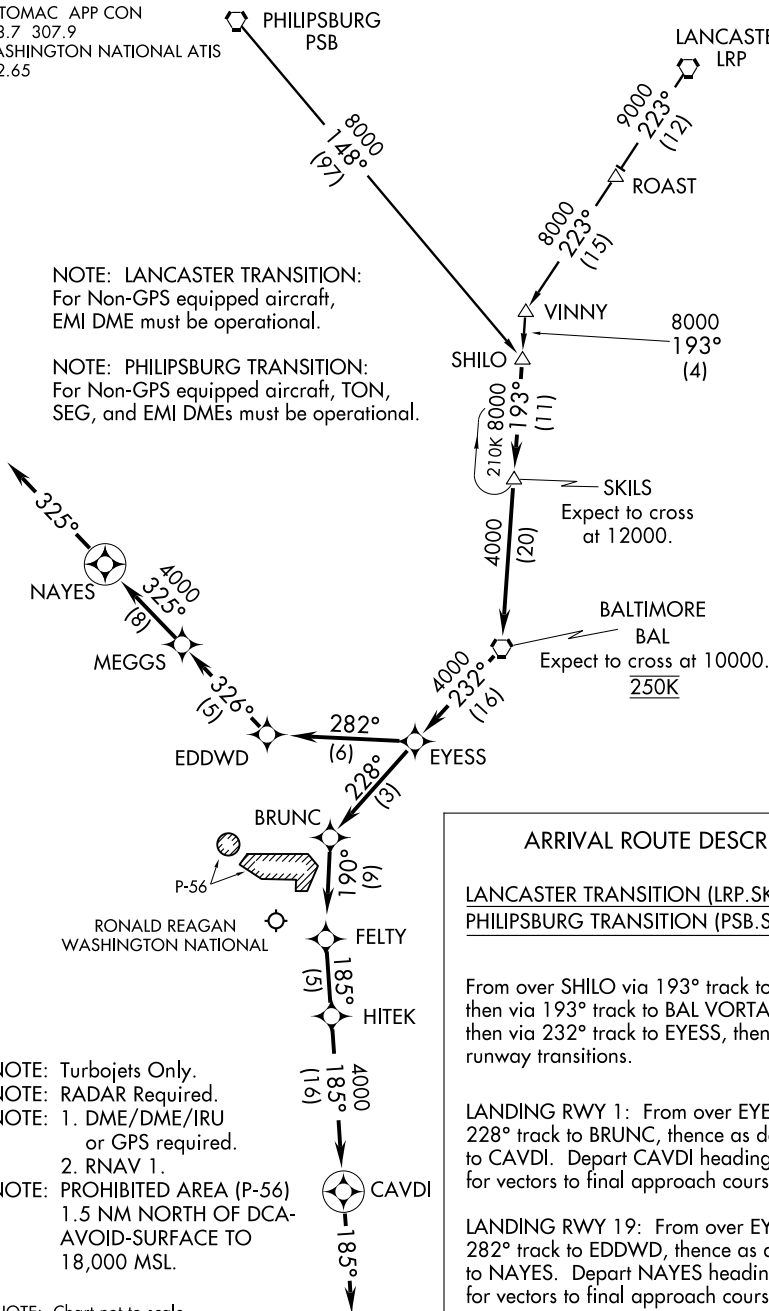
POTOMAC APP CON
128.7 307.9
WASHINGTON NATIONAL ATIS
132.65

PHILIPSBURG
PSB

LANCASTER
LRP

NOTE: LANCASTER TRANSITION:
For Non-GPS equipped aircraft,
EMI DME must be operational.

NOTE: PHILIPSBURG TRANSITION:
For Non-GPS equipped aircraft, TON,
SEG, and EMI DMEs must be operational.



NOTE: Turbojets Only.

NOTE: RADAR Required.

NOTE: 1. DME/DME/IRU
or GPS required.

NOTE: 2. RNAV 1.

NOTE: PROHIBITED AREA (P-56)
1.5 NM NORTH OF DCA-
AVOID-SURFACE TO
18,000 MSL.

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

LANCASTER TRANSITION (LRP.SKILS1):
PHILIPSBURG TRANSITION (PSB.SKILS1):

From over SHILO via 193° track to SKILS,
then via 193° track to BAL VORTAC,
then via 232° track to EYESS, then via
runway transitions.

LANDING RWY 1: From over EYESS via
228° track to BRUNC, thence as depicted
to CAVDI. Depart CAVDI heading 185°
for vectors to final approach course.

LANDING RWY 19: From over EYESS via
282° track to EDDWD, thence as depicted
to NAYES. Depart NAYES heading 325°
for vectors to final approach course.

VOR/DME DCA	APP CRS	Rwy Idg
111.0	144°	5204
Chan 47		TDZE 16
		Apt Elev 16

VOR/DME or GPS RWY 15

WASHINGTON/RONALD REAGAN WASHINGTON NATIONAL (DCA)

V Circling Cat C and D not authorized
A northeast of Rwy 15-33.

MISSED APPROACH: Climbing right turn to 1800 via
 DCA R-185 to OXONN NDB/Int/DCA 5.6 DME and hold.

ATIS
132.65

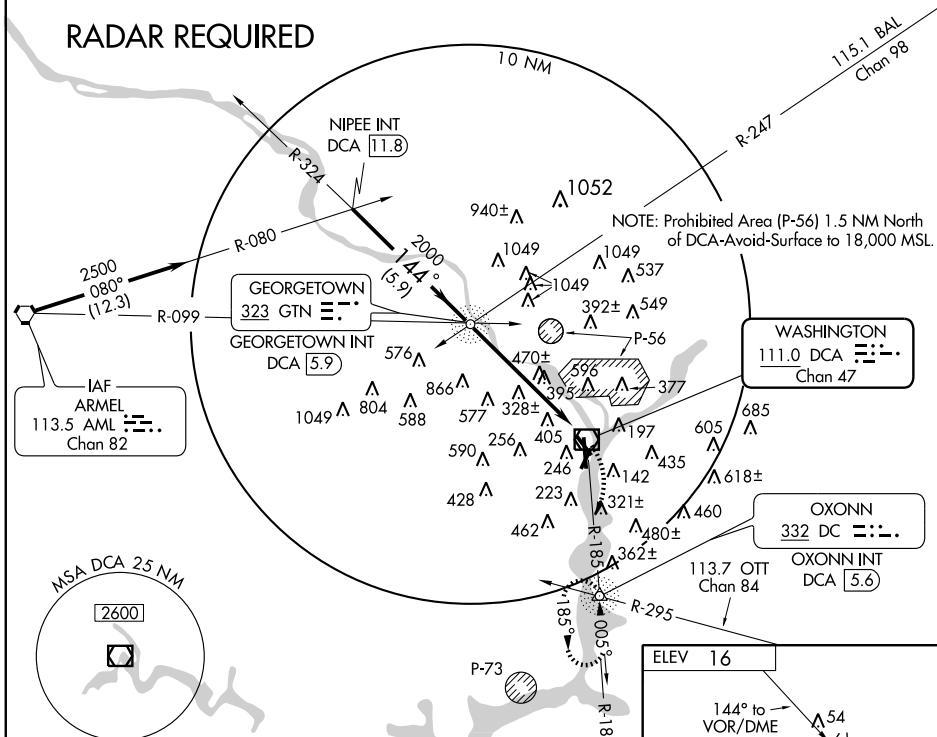
POTOMAC APP CON
124.7 338.2

WASHINGTON TOWER
119.1 257.6

GND CON
121.7 257.6

CLNC DEL
128.25

RADAR REQUIRED



CATEGORY	A		B		C		D	
	S-15		CIRCLING		S-15		CIRCLING	
S-15	920-1¼	904 (1000-1¼)	920-2¾	904 (1000-2¾)	920-3	904 (1000-3)	920-3	904 (1000-3)
CIRCLING	920-1¼	904 (1000-1¼)	920-2¾	904 (1000-2¾)	920-3	904 (1000-3)	920-3	904 (1000-3)

TDZ/CL Rwy 1
 REIL Rwy 4, 15, 22 and 33
 HIRL Rwy 1-19 and 15-33
 MIRL Rwy 4-22

WASHINGTON, DC

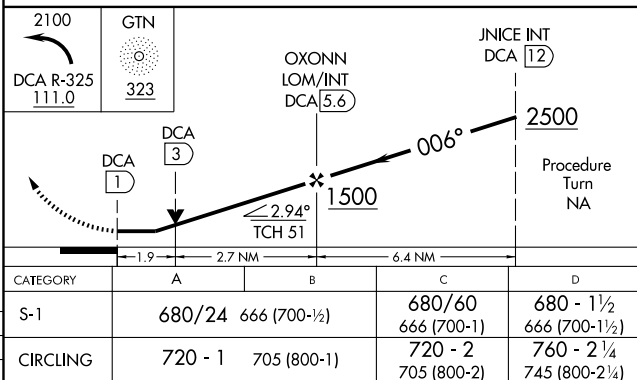
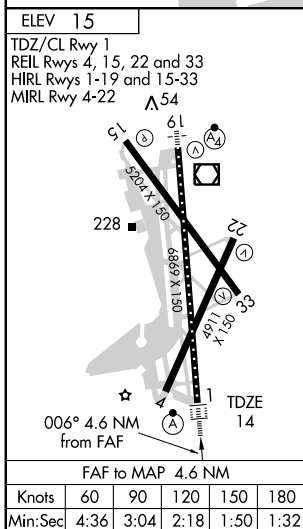
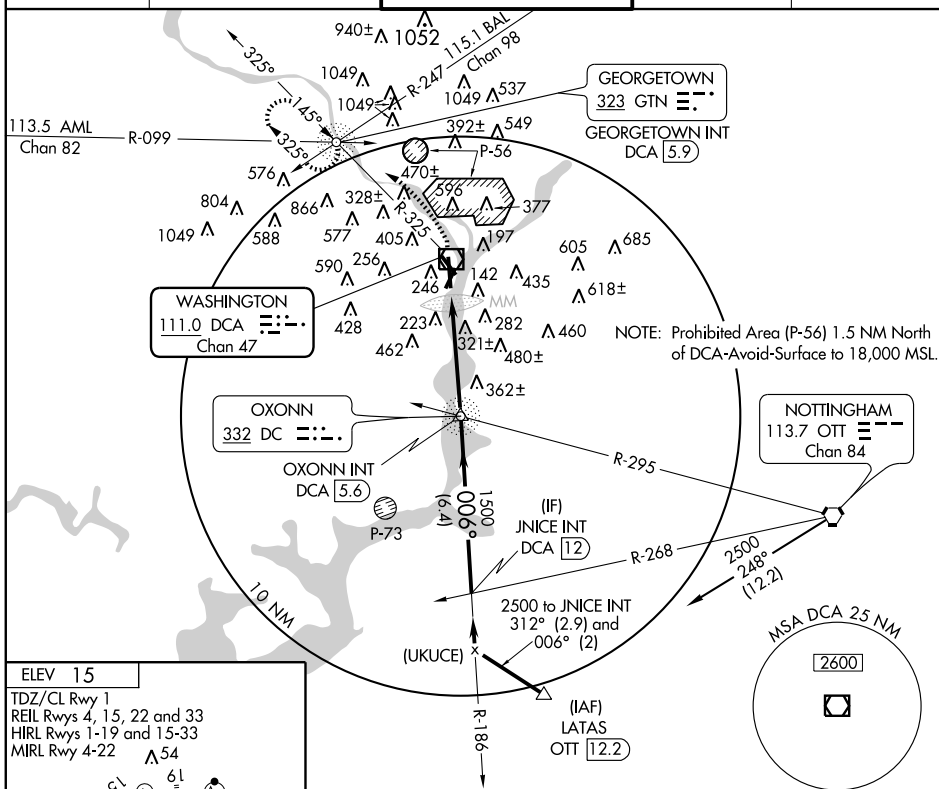
AL-443 (FAA)

VOR/DME DCA	APP CRS	Rwy Idg TDZE	6869
111.0	006°	14	
Chan 47		Apt Elev	15

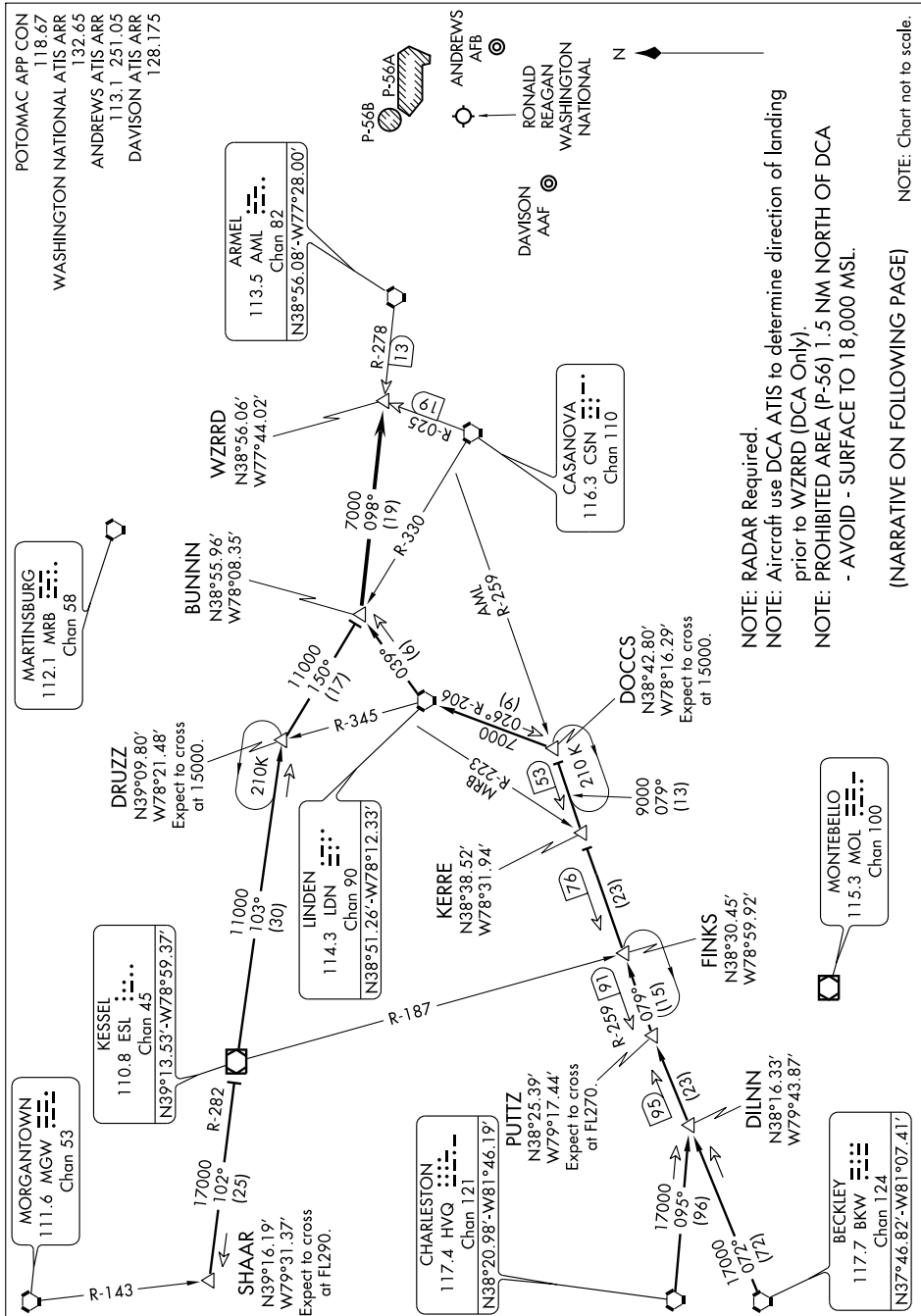
VOR RWY 1

WASHINGTON/ RONALD REAGAN WASHINGTON NATIONAL (DCA)

	Circling NA NE of Rwy 15-33.		ALSF-2 	MISSED APPROACH: Climbing left turn to 2100 via DCA VOR/DME R-325 to GTN NDB/INT/DCA 5.9 DME and hold.
	ATIS 132.65	POTOMAC APP CON 124.7 338.2	WASHINGTON TOWER 119.1 257.6	GND CON 121.7 257.6
				CLNC DEL 128.25



NE-3, 14 JAN 2010 to 11 FEB 2010



ARRIVAL ROUTE DESCRIPTION

BECKLEY TRANSITION (BKW.WZRRD2): From over BKW VORTAC via BKW R-072 to PUTTZ INT, then via AML R-259 to DOCCS INT, then via LDN R-206 to LDN VORTAC, then via LDN R-039 to BUNNN INT, thence

CHARLESTON TRANSITION (HVQ.WZRRD2): From over HVQ VORTAC via HVQ R-095 to DILNN INT, then via BKW R-072 to PUTTZ INT, then via AML R-259 to DOCCS INT, then via LDN R-206 to LDN VORTAC, then via LDN R-039 to BUNNN INT, thence

SHAAR TRANSITION (SHAAR.WZRRD2): From over SHAAR INT via ESL R-282 to ESL VOR/DME, then via R-103 to DRUZZ INT, then via CSN R-330 to BUNNN, thence

. . . . from over BUNNN INT via AML R-278 to WZRRD INT. Expect vectors to final approach course after WZRRD INT.

AIRPORT DIAGRAM

AL-5100 (FAA)

WASHINGTON DULLES DULLES INTL (IAD)

WASHINGTON, DC

ATIS

134.85

DULLES TOWER

120.1 317.8 (Rwy 1R/19L)

120.25 348.6 (Rwy 1C/19C)

128.425 348.6 (Rwys 1L/19R, 12/30)

GND CON

121.9 317.8 (EAST)

132.45 348.6 (WEST)

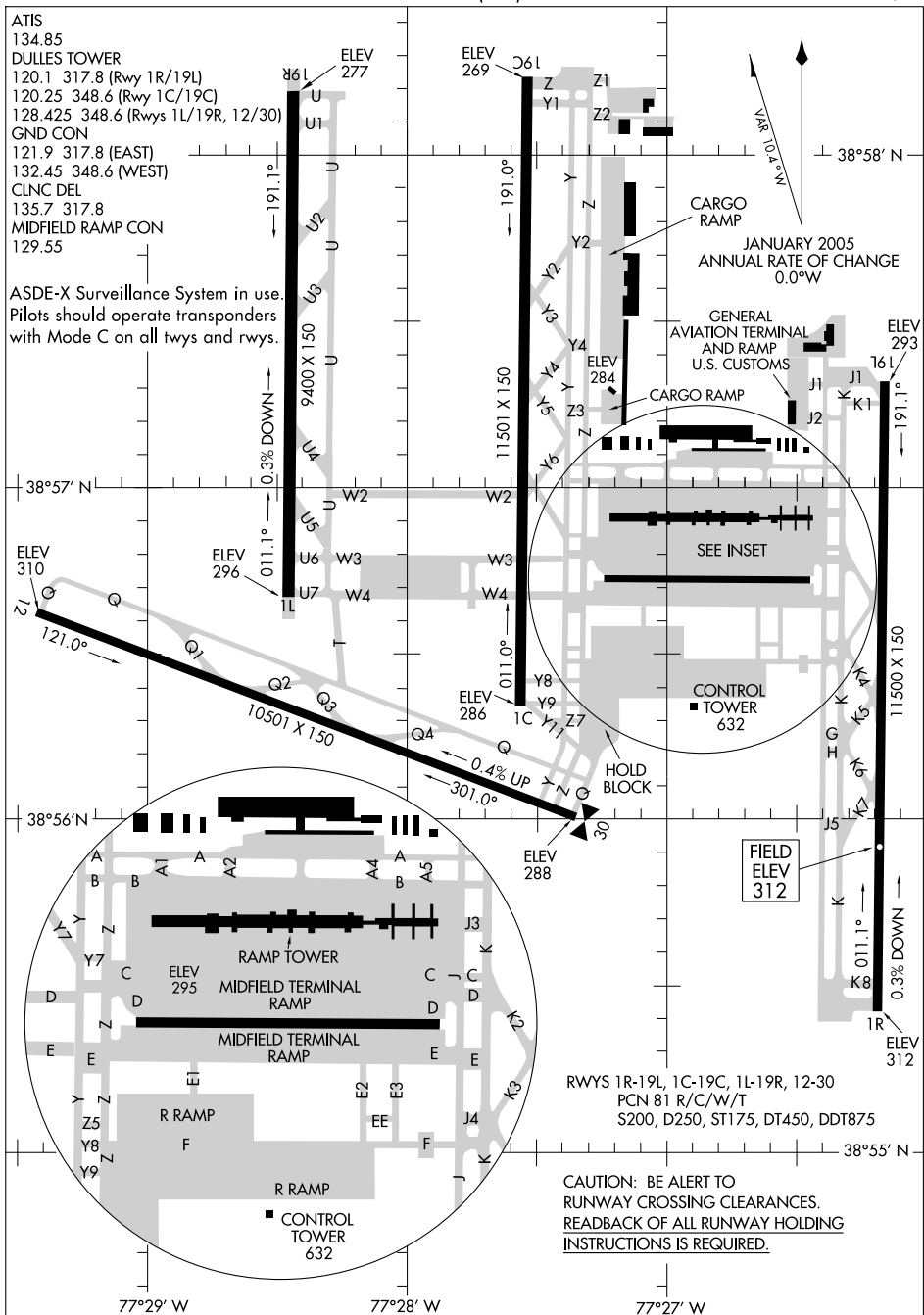
CLNC DEL

135.7 317.8

MIDFIELD RAMP CON

129.55

ASDE-X Surveillance System in use.
Pilots should operate transponders
with Mode C on all twys and rwys.



NE-3, 14 JAN 2010 to 11 FEB 2010

RWYS 1R-19L, 1C-19C, 1L-19R, 12-30
PCN 81 R/C/W/T
S200, D250, ST175, DT450, DDT875

CAUTION: BE ALERT TO
RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING
INSTRUCTIONS IS REQUIRED.

BARIN ONE ARRIVAL (RNAV)

POTOMAC APP CON
124.65 306.925
DULLES ATIS
134.85

MARTINSBURG
MRB

LANDING RWYS 19L/C/R: Depart MIXNN
heading 010°, expect radar vectors to
final approach course.

TRING
4000

WASHINGTON DULLES INTL



MIXNN
4000



NOTE: Maintain last ATC assigned
altitude until cleared to "Descend
via the Barin One Arrival."

NOTE: 1. DME/DME/IRU or GPS Required.
2. RNAV 1.

NOTE: Radar required.



STAYO
4000



BARIN
5000

LANDING RWYS 1L/C/R or 30: After
BARIN, expect radar vectors to final
approach course.

FALCO

Non-turboprops expect to cross at 8,000.
Turboprops expect to cross at 10,000
and 250 KIAS.

BROOKE
BRV

4 NM

230K

4 NM

270K

4 NM

230K

4 NM

230K

COATT

NABBS

MAA 22000
3500
035°
(23)

FLAT ROCK
FAK

OGATE

035°
(7)

4 NM

230K

4 NM

230K

4 NM

230K

4 NM

230K

4 NM

230K

4 NM

230K

4 NM

230K

4 NM

230K

ARRIVAL ROUTE DESCRIPTION

FLAT ROCK TRANSITION (FAK.BARIN1)
RICHMOND TRANSITION (RIC.BARIN1)

... From COATT via 035° track to OGATE,
thence as depicted to MIXNN, cross MIXNN
at 4,000', depart MIXNN heading 010°.
Expect radar vectors to final
approach course.

NOTE: Chart not to scale.

CAPITAL SEVEN DEPARTURE



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 1C, 1L, 1R: Climb heading 011° or as assigned, Thence. . . .

TAKE-OFF RUNWAY 12: Climb heading 121° or as assigned, Thence. . . .

TAKE-OFF RUNWAYS 19C, 19L, 19R: Climb heading 191° or as assigned, Thence. . . .

TAKE-OFF RUNWAY 30: Climb heading 301° or as assigned, Thence. . . .

. . . .Expect radar vectors to filed/assigned route or depicted fix. Maintain 3000,
expect clearance to filed altitude/flight level 10 minutes after departure.

SPECIAL INSTRUCTIONS: For appropriate departure control frequency, see graphic.
Use frequency depicted within sector where your first Navaid/Fix/Route is located,
or as assigned.

TAKE-OFF OBSTACLES

Rwy 1C: Tree 2814' from DER, 1030' left of centerline, 86' AGL/345' MSL.

Rwy 1R: Post 12' from DER, 223' right of centerline, 8' AGL/294' MSL.

Rwy 1L: Tower 1918' from DER, 680' left of centerline, 56' AGL/330' MSL.

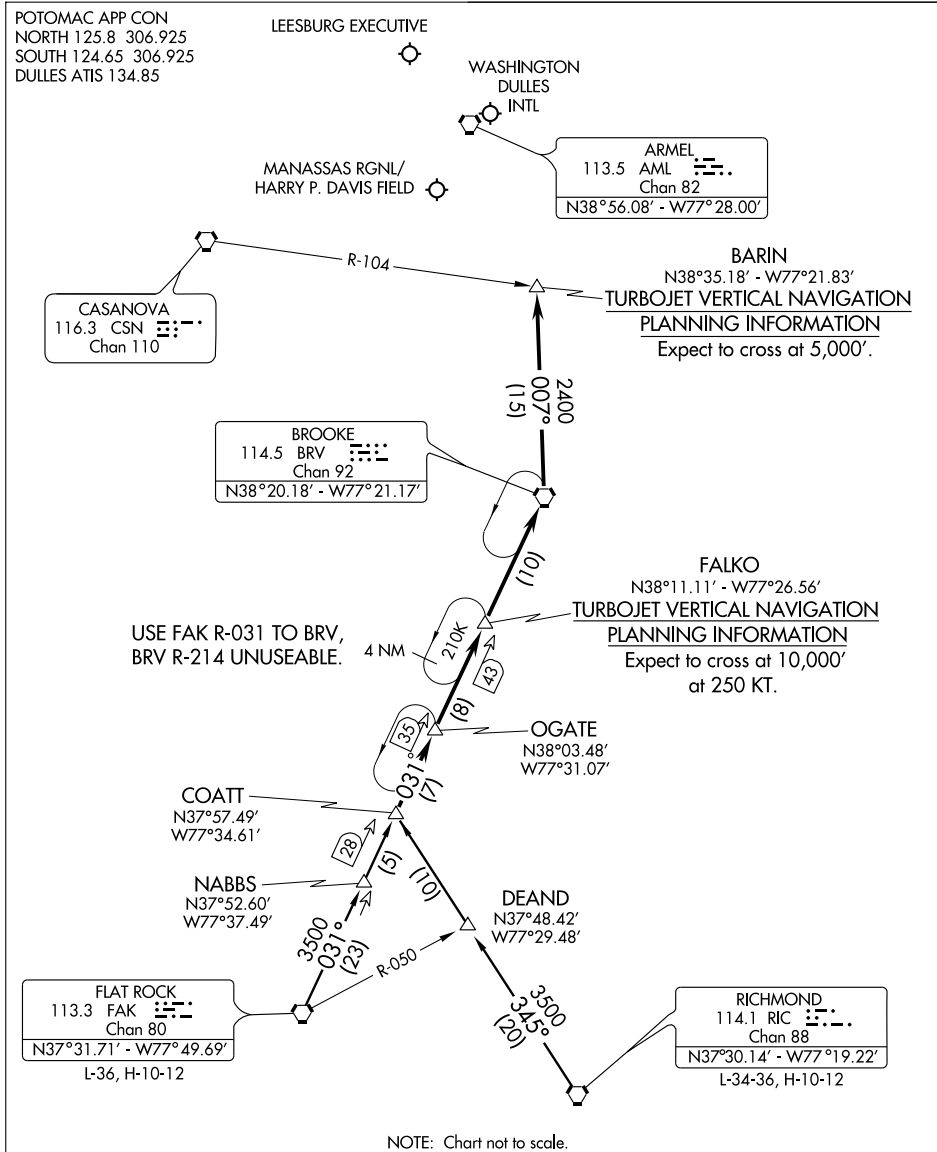
Rwy 12: Tree 520' from DER, 604' left of centerline, 28' AGL/307' MSL.

Rwy 30: Trees beginning 161' from DER, 520' left of centerline, up to 57' AGL/396' MSL.

Trees beginning 532' from DER, 600' right of centerline, up to 64' AGL/383' MSL.

COATT FOUR ARRIVAL

WASHINGTON, DC

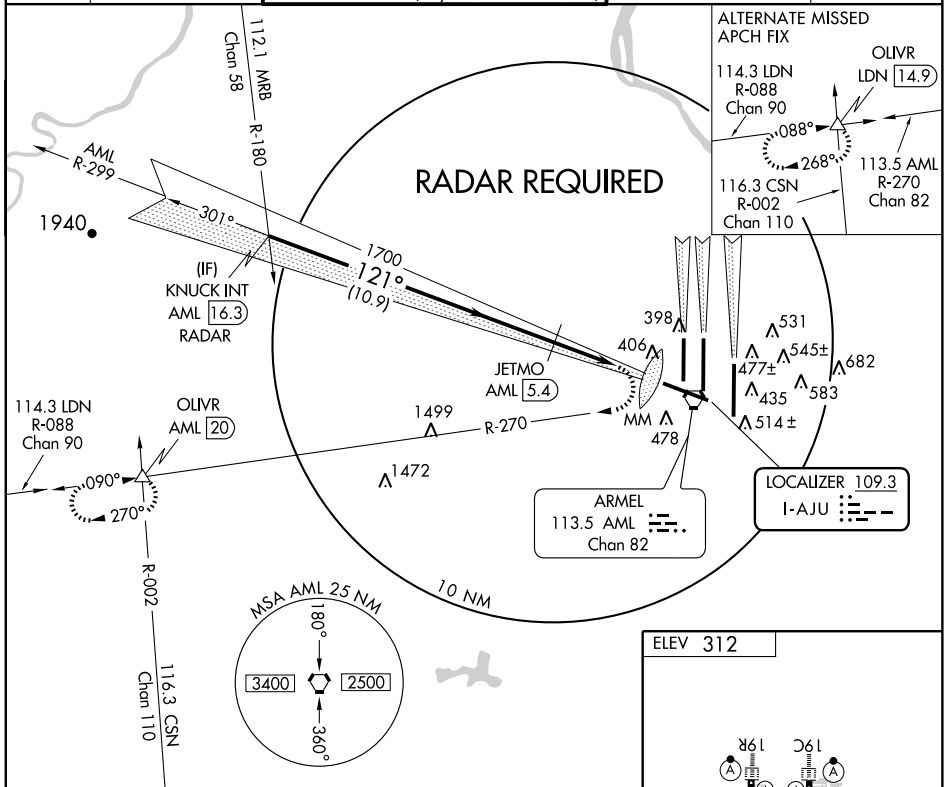


FLAT ROCK TRANSITION (FAK.COATT4): From over FAK VORTAC via FAK R-031 to COATT INT. Thence . . .

RICHMOND TRANSITION (RIC.COATT4): From over RIC VORTAC via RIC R-345 to COATT INT. Thence . . .

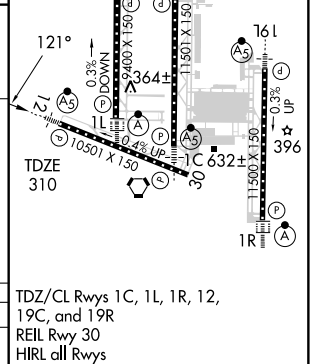
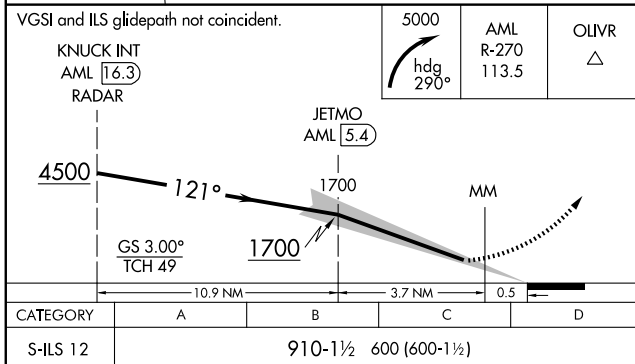
. . . From over COATT INT via FAK R-031 to BRV VORTAC, then from over BRV VORTAC via BRV R-007 to BARIN INT. Expect radar vectors to final approach course after BARIN INT.

ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)	GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)	CLNC DEL 135.7 317.8
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NE-3, 14 JAN 2010 to 11 FEB 2010

VGSI and ILS glidepath not coincident.
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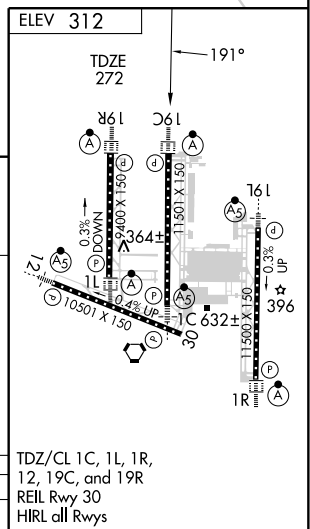


ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)	GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)	CLNC DEL 135.7 317.8
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Figure 1-1 is an example of a 4-Segment RNAV (RNP) Approach Chart. The chart displays a 4-segment RNAV (RNP) approach for S-ILS 19C. The segments are labeled A, B, C, and D. The chart includes various navigation aids, including the GS 3.00° TCH 54, and distance markers in NM. The chart also includes a table with the following data:

CATEGORY	A	B	C	D
S-ILS 19C	872-1 1/2	600 (600-1 1/2)		



LOC/DME I-SGC	APP CRS	Rwy Idg	11500
110.1	191°	TDZE	302
Chan 38		Apt Elev	312

CONVERGING ILS RWY 19L

WASHINGTON DULLES INTL (IAD)



Simultaneous converging approaches authorized with Rwy 12.

▲ NA For inoperative MALSR, increase 5-ILS 19L all Cats visibility to 2 miles.

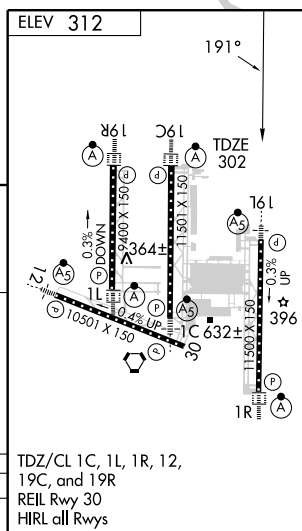
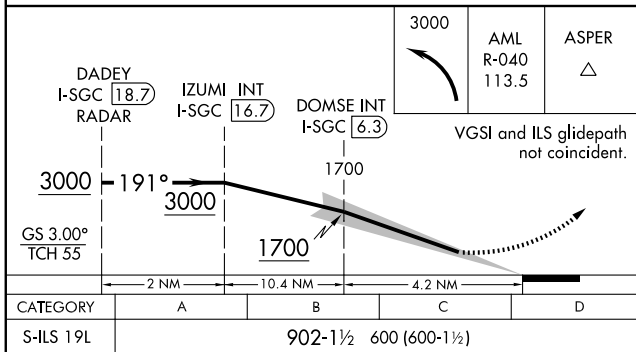
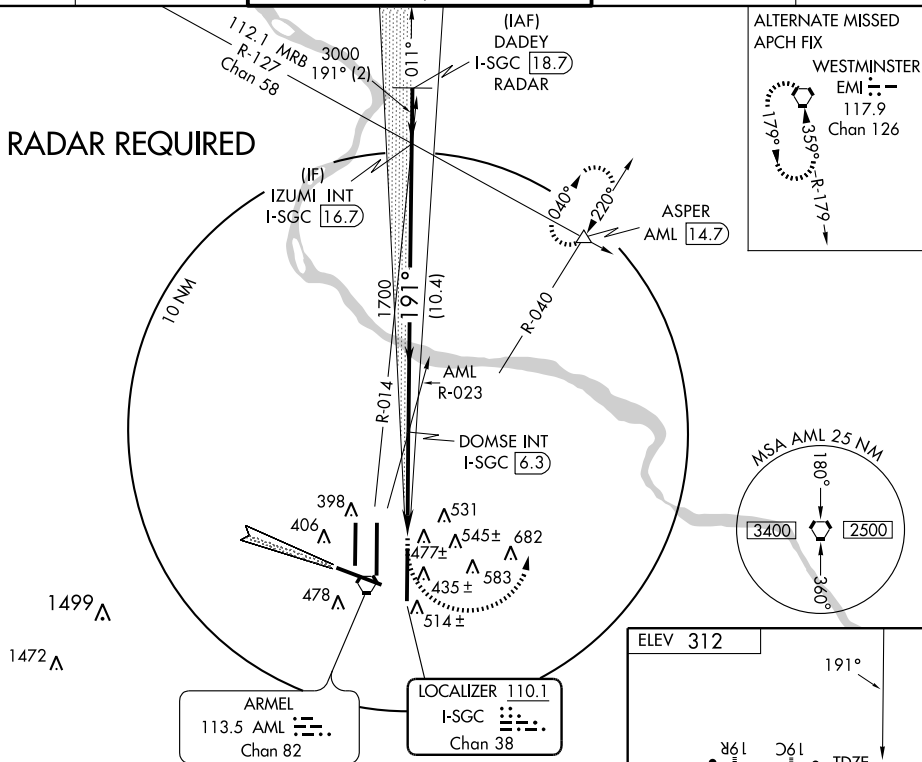
MALSR



MISSED APPROACH: Climbing left turn to 3000 via AML VORTAC R-040 to ASPER INT/AML 14.7 DME and hold.

ATIS	POTOMAC APP CON	DULLES TOWER	GND CON	CLNC DEL
134.85	120.45 306.925	120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)	121.9 317.8 (EAST) 132.45 348.6 (WEST)	135.7 317.8

RADAR REQUIRED



LOC/DME I-ISU 110.75 Chan 44 (Y)	APP CRS 191°	Rwy Idg TDZE Apt Elev	9400 278 312
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CONVERGING ILS RWY 19R

WASHINGTON DULLES INTL (IAD)



A NA

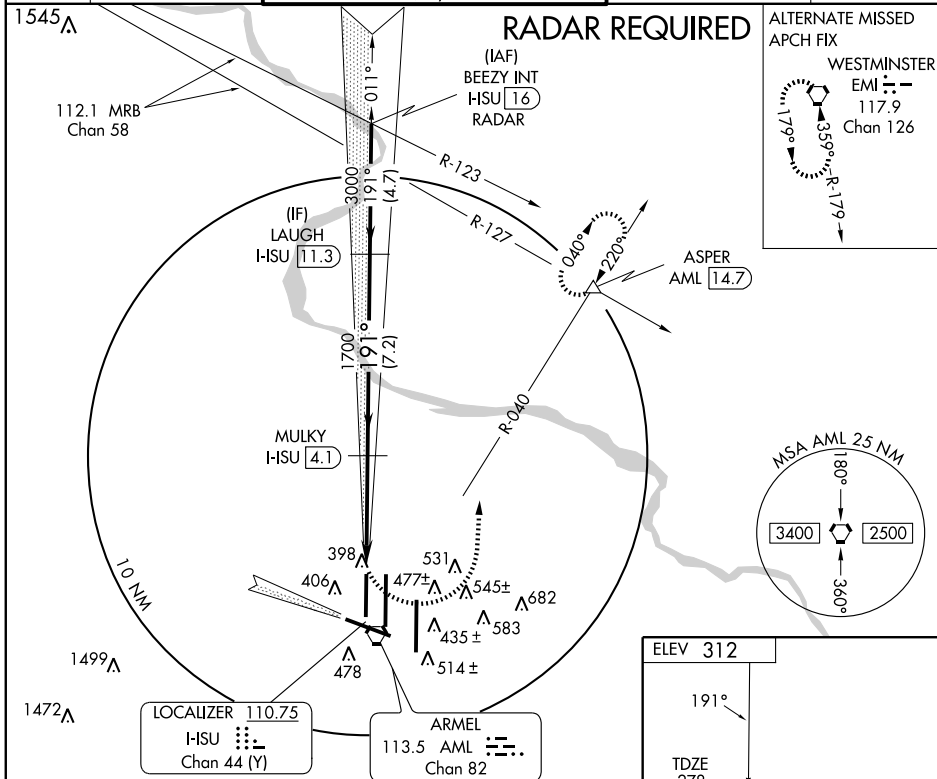
Simultaneous converging approaches authorized with Rwy 12. For inoperative ALSF-2, increase S-ILS 19R all Cats visibility to 2¾ miles.

ALSF-2

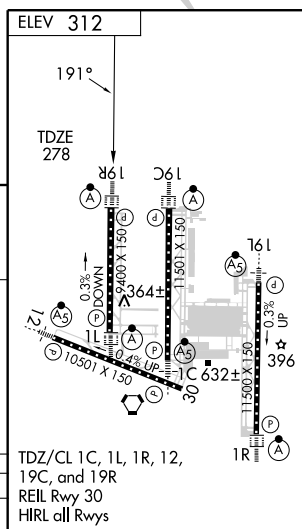
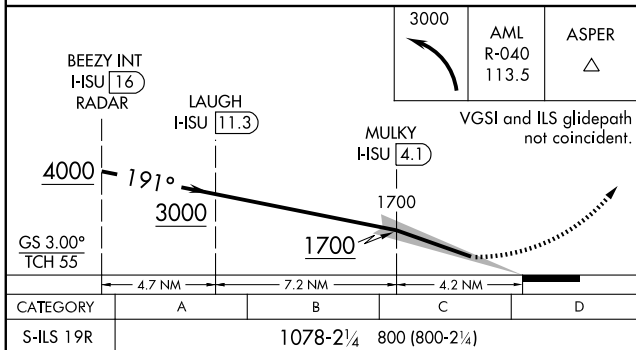


MISSED APPROACH: Climbing left turn to 3000 via AML VORTAC R-040 to ASPER INT/AML 14.7 DME and hold.

ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)	GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)	CLNC DEL 135.7 317.8
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NE-3, 14 JAN 2010 to 11 FEB 2010

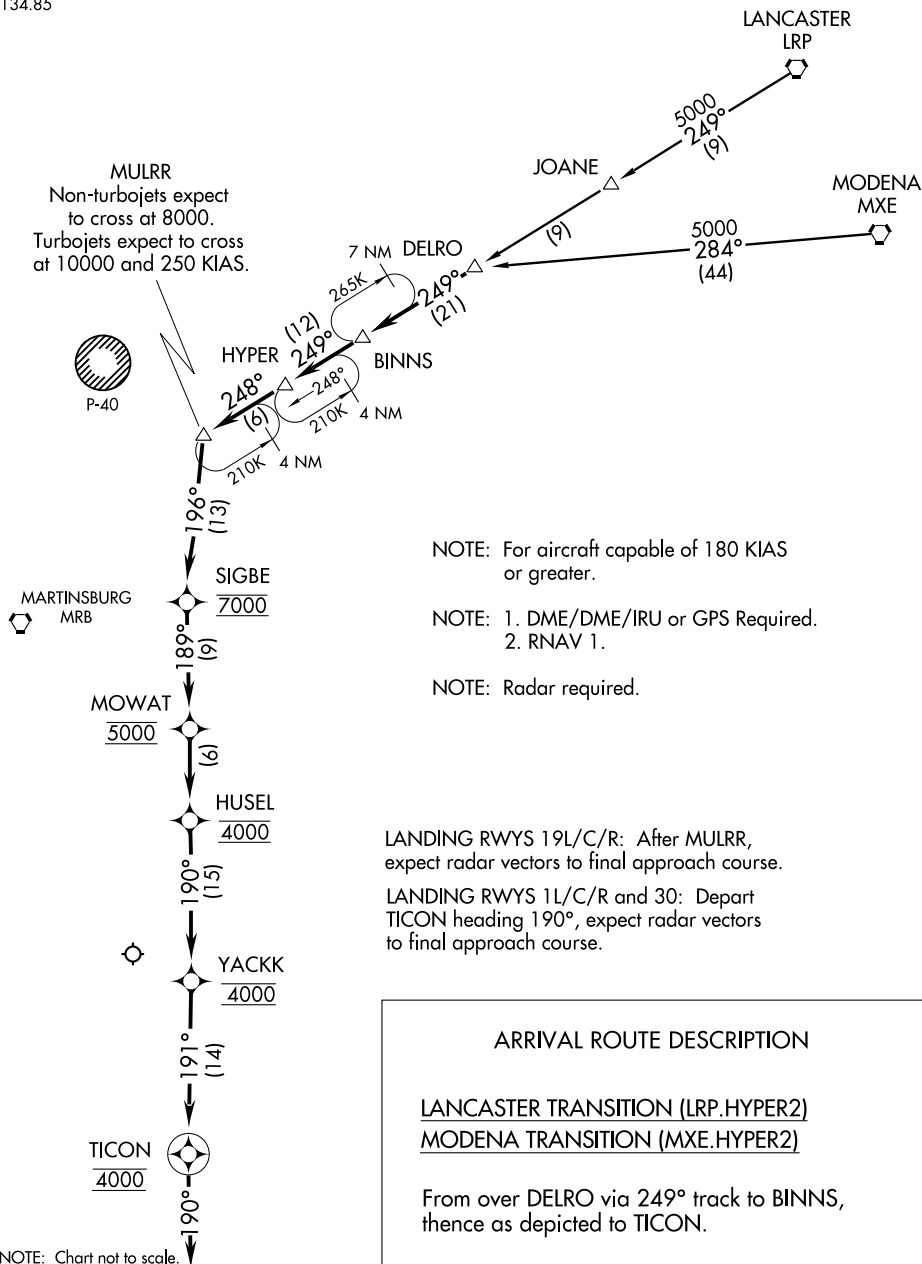


DELRO TWO ARRIVAL



HYPER TWO ARRIVAL (RNAV)

POTOMAC APP CON
126.1 338.25
DULLES ATIS
134.85



LOC/DME I-OIU <u>110.75</u> Chan 44 (Y)	APP CRS 011°	Rwy Idg 9400 TDZE 296 Apt Elev 312
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ILS or LOC/DME RWY 1L
WASHINGTON DULLES INTL (IAD)

T Simultaneous approach authorized with Rwy 1R or 1C.
A LOC procedure NA during simultaneous operations.

ALSF-2

MISSED APPROACH: Climb to 800 then climbing left turn to 5000 via heading 240° and AML VORTAC R-270 to OLIVR INT/AML 20 DME and hold, continue climb-in-hold to 5000.

ATIS	POTOMAC APP CON
134.85	120.45 306.925

DULLES TOWER
120.1 317.8 (Rwy 1R/19L)
120.25 348.6 (Rwy 1C/19C)
128.425 348.6 (Rwys 1L/19R and 12/30)

GND CON
121.9 317.8 (E
132.45 348.6 (V

CLNC DEL
135.7 317.8

ALTERNATE MISSED APCH FIX

MISSED APCH FIX

CASANOVA
6.3 CSN 
Chan 110

LOCALIZER 110.75
I-OIU ::--
Chan 44 (Y)

ARMEL
13.5 AML
Chan 82

MSA AML 25 NM

ELEV	312
------	-----

DME or RADAR REQUIRED

CINNA INT
I-OIU 17.5
RADAR

VGSI and ILS glidepath
not coincident.

FAZER
I-OIU 13.1

BIGGZ
I-OIU 9.7

MORCE
I-OIU 6.5

I-OIU 2.6

I-OIU 1.7

IM

800
↑

5000
hdg 240°

AML R-270
113.5

OLIVR
△

4000

011°

3000

***2900**

1900

GS 3.00°
TCH 55

*** When assigned by ATC,**
intercept glidepath at 2900.

4.4 NM

3.5 NM

3.1 NM

3.9 NM

0.8

0.1

CATEGORY	A	B	C	D
S-ILS 1L			496/18 200 (200-½)	
S-LOC 1L		660/24 364 (400-½)		660/40 364 (400-¾)
CIRCLING	940-1 628 (700-1)		940-1¾ 628 (700-1¾)	940-2 628 (700-2)

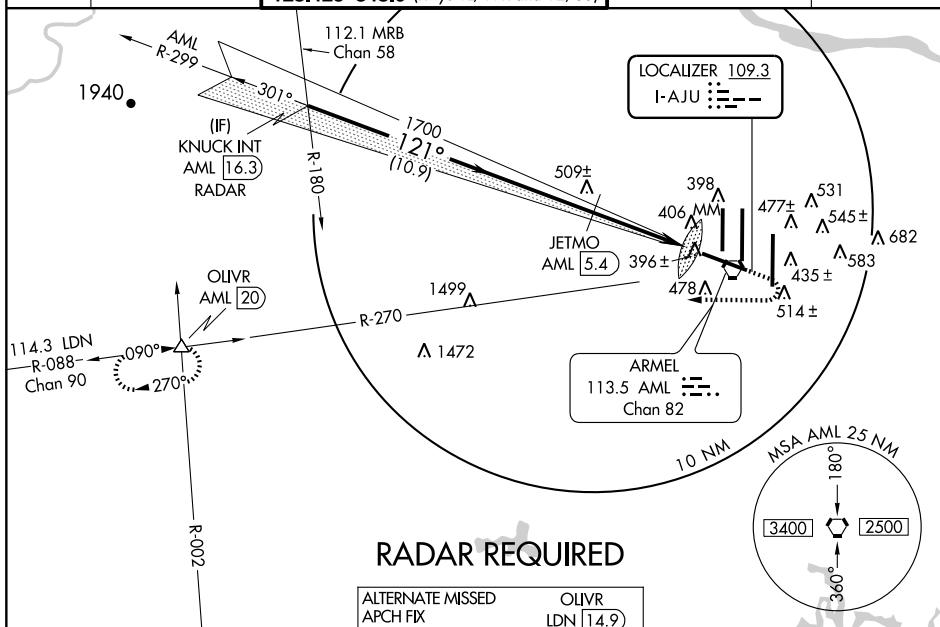
LOC I-AJU 109.3	APP CRS 121°	Rwy Idg 10501
		TDZE 310
		Apt Elev 312

ILS or LOC/DME RWY 12

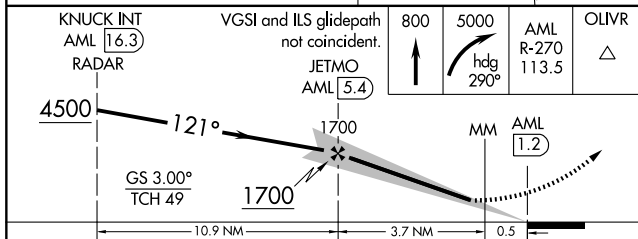
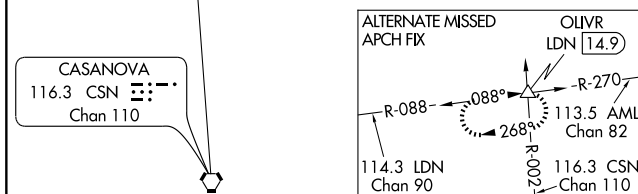
WASHINGTON DULLES INTL (IAD)

	MALSR 	MISSED APPROACH: Climb to 800 then climbing right turn to 5000 via heading 290° and AML VORTAC R-270 to OLIVR INT/AML 20 DME and hold, continue climb-in-hold to 5000.
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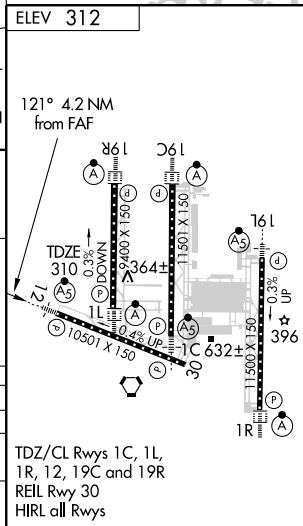
ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)	GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)	CLNC DEL 135.7 317.8
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RADAR REQUIRED



CATEGORY	A	B	C	D
S-ILS 12	510/18 200 (200-½)			
S-LOC 12	660/24 350 (400-½)		660/40 350 (400-¾)	
CIRCLING	940-1 628 (700-1)		940-2 628 (700-2)	



LOC I-DLX 111.3	APP CRS 191°	Rwy Idg 11501 TDZE 272 Apt Elev 312
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ILS or LOC/DME RWY 19C

WASHINGTON DULLES INTL (IAD)

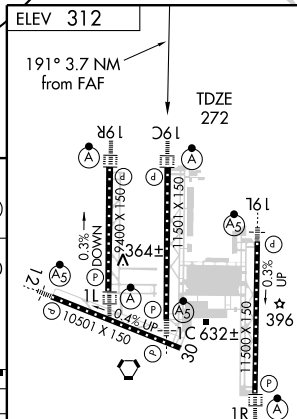
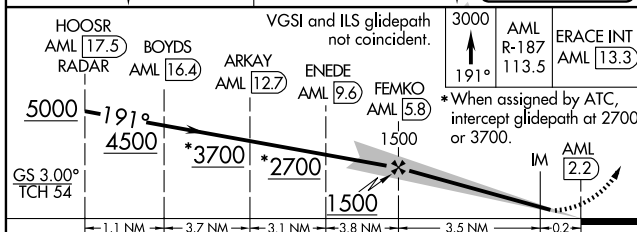
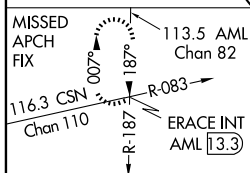
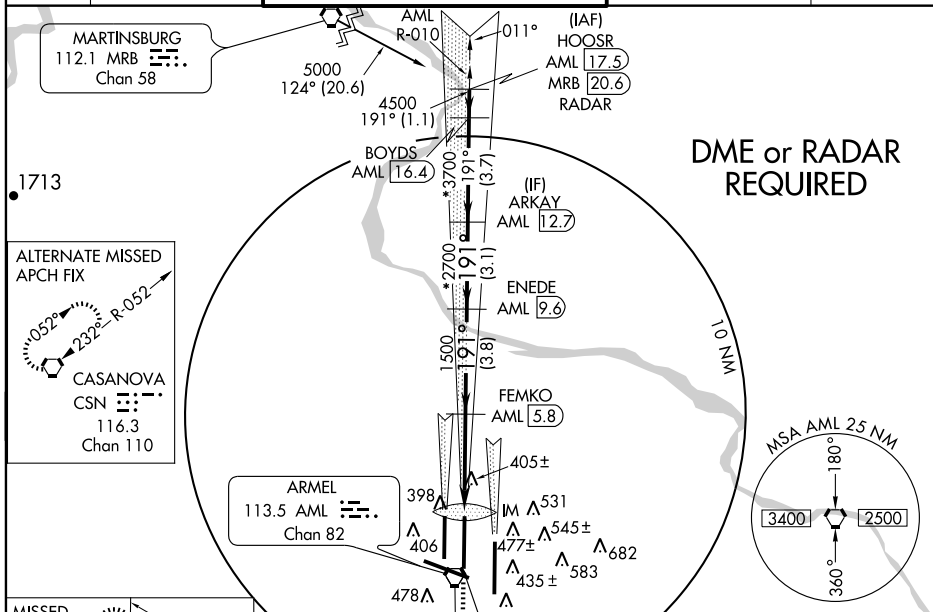
⚠ DME from AML VORTAC.
Simultaneous reception of I-DLX and AML DME required.
Simultaneous approach authorized with Rwy 19L or 19R.
LOC procedure NA during simultaneous operations.

ALSIF-2



MISSED APPROACH: Climb to 3000 via heading 191° and AML VORTAC R-187 to ERACE INT/AML 13.3 DME and hold.

ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)	GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)	CLNC DEL 135.7 317.8
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CATEGORY	A	B	C	D
S-ILS 19C		472/18	200 (200-½)	
S-LOC 19C		660/24	388 (400-½)	660/40 388 (400-¾)
CIRCLING	940-1 628 (700-1)		940-1¾ 628 (700-1¾)	940-2 628 (700-2)

TDZ/CL 1C, 1L, 1R,
12, 19C and 19R
REL Rwy 30
HIRL all Rwys

LOC/DME I-ISU 110.75 Chan 44 (Y)	APP CRS 191°	Rwy Idg TDZE Apt Elev	9400 278 312
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ILS or LOC/DME RWY 19R

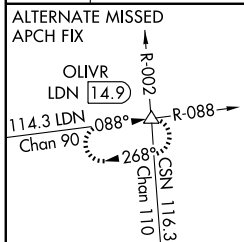
WASHINGTON DULLES INTL (IAD)

- Simultaneous approach authorized with Rwy 19C or 19L.
LOC procedure NA during simultaneous operations.

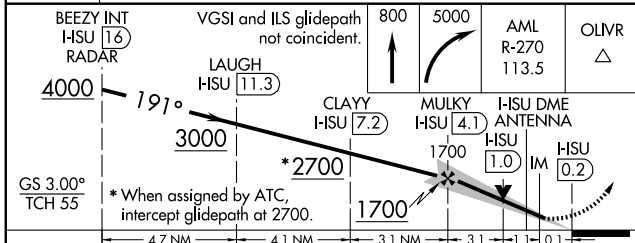
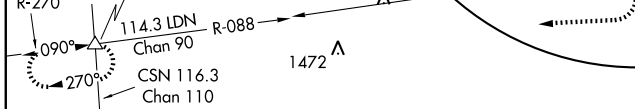
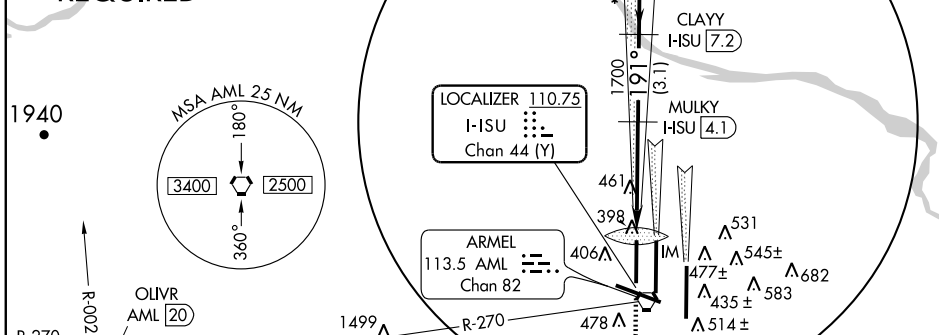


MISSED APPROACH: Climb to 800 then climbing right turn to 5000 via AML VORTAC R-270 to OLIVR INT/AML 20 DME and hold, continue climb-in-hold to 5000.

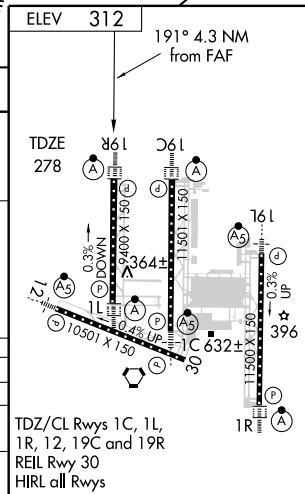
ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)	GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)	CLNC DEL 135.7 317.8
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DME or RADAR REQUIRED



CATEGORY	A	B	C	D
S-ILS 19R		478/18	200 (200-1/2)	
S-LOC 19R	720/24	442 (500-1/2)	720/40 442 (500-3/4) 940-1 3/4 628 (700-1 3/4)	720/50 442 (500-1) 940-2 628 (700-2)
CIRCLING	940-1	628 (700-1)		



LOC/DME I-AD <u>110.1</u> Chan 38	APP CRS 011°	Rwy Idg 11500 TDZE 312 Apt Elev 312
--	------------------------	--

ILS or LOC RWY 1R
WASHINGTON DULLES INTL (IAD)

T	Simultaneous approach authorized with Rwy 1C or 1L. LOC procedure NA during simultaneous operations.
A	

ALSF-2

MISSED APPROACH: Climb to 800 then climbing right turn to 3000 via heading 060° and AML VORTAC R-051 to BLITZ INT/AML 20 DME and hold.

ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)	GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)	CLNC DEL 135.7 317.8
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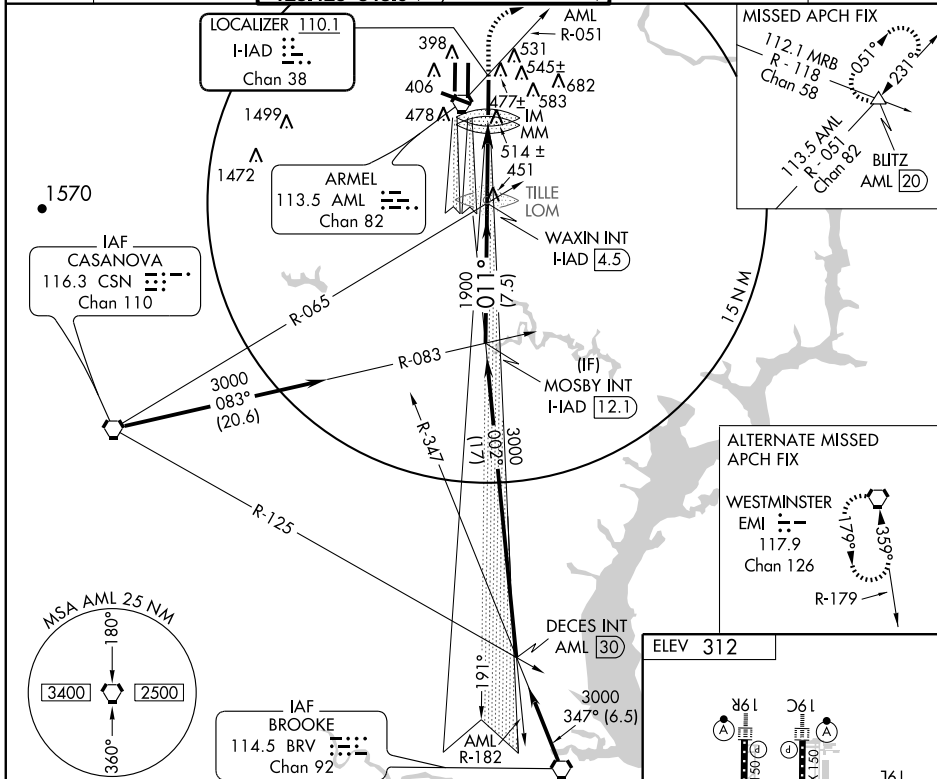
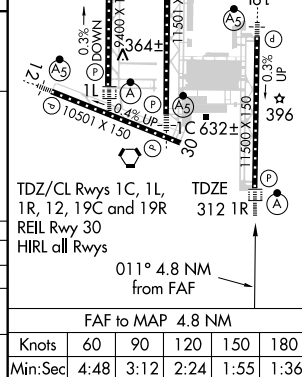


Figure 1-1 is an example of a non-precision approach chart. The chart includes the following information:

- Procedure Turn NA** at 3000 feet.
- MOSBY INT I-AD 12.1** and **WAXIN INT I-AD 4.5**.
- VGSI and ILS Glidepath not coincident.**
- 3000** feet altitude.
- 011°** heading.
- GS 3.00° TCH 53** glide slope and threshold.
- 1900** feet altitude.
- 7.5 NM** and **3.6 NM** distances.
- I-AD 0.9** and **I-AD DME ANT.** distances.
- 0.7**, **0.3**, **0.1**, and **0.1** mile segments.
- AML R-051 113.5** and **BLITZ** (triangle symbol).
- hdg 060°** heading.
- CATEGORY** table:

CATEGORY	A	B	C	D
S-ILS 1R	512/18 200 (200-½)			
S-LOC 1R	760/24 448 (500-½)		760/40 448 (500-¾)	760/50 448 (500-1)
CIRCLING	940-1 628 (700-1)		940-1 628 (700-¾)	940-2 628 (700-2)



LOC/DME I-SGC <u>110.1</u> Chan 38	APP CRS 191°	Rwy Idg 11500 TDZE 302 Apt Elev 312
--	------------------------	--

ILS or LOC RWY 19L
WASHINGTON DULLES INTL (IAD)

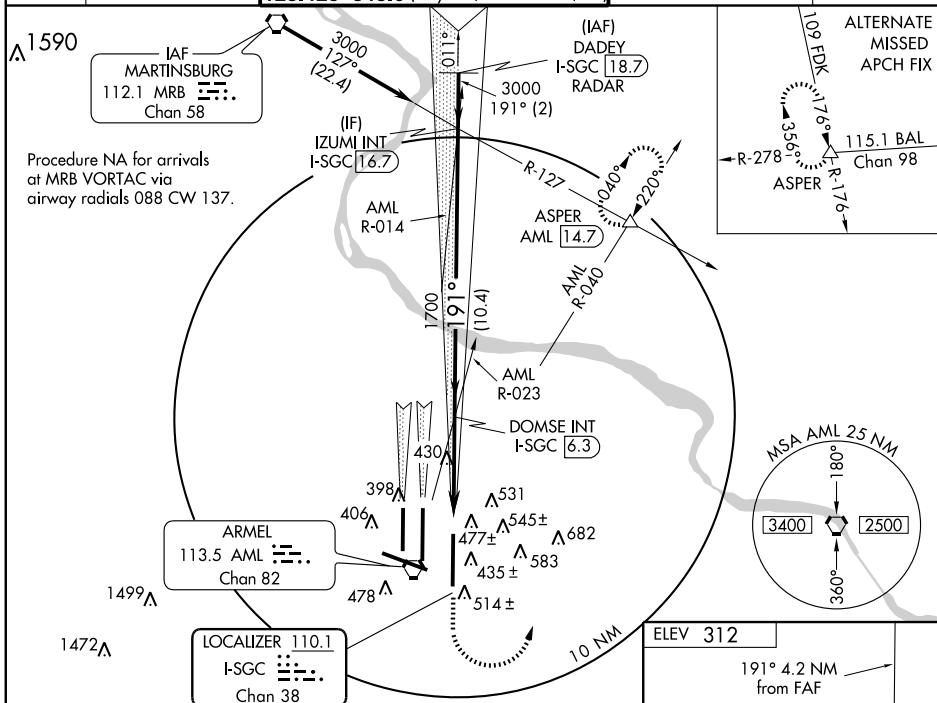
T Simultaneous approach authorized with Rwy 19C or 19R.
A LOC procedure NA during simultaneous operations.
 *1800 RVR authorized with the use of FD or AP or HUD to DA.

MALSR

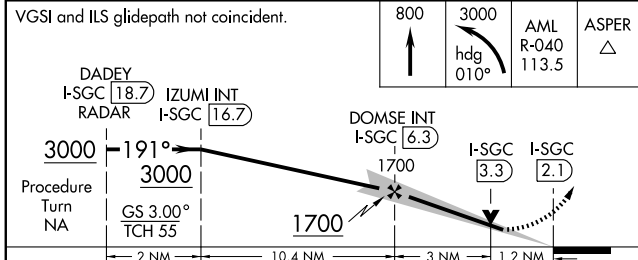


MISSED APPROACH: Climb to 800 then climbing left turn to 3000 via heading 010° and AML Vortac R-040 to ASPER INT/AML 14.7 DME and hold.

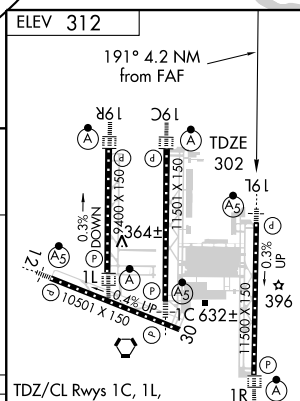
ATIS	POTOMAC APP CON	DULLES TOWER		GND CON	CLNC DEL
120.1	317.8	(Rwy 1R/19L)		121.9	317.8 (EAST)
120.25	348.6	(Rwy 1C/19C)		132.45	348.6 (WEST)
128.425	348.6	(Rwys 1L/19R and 12/30)			135.7 317.8



VGSI and ILS glidepath not coincident.



CATEGORY	A	B	C	D
S-ILS 19L	* 502/24 200 (200-½)			
S-LOC 19L	740/24	438 (500-½)	740/40 438 (500-¾)	740/50 438 (500-1)
CIRCLING	940-1	628 (700-1)	940-1¾ 628 (700-1¾)	940-2 628 (700-2)



TDZ/CL Rwy 1C, 1L,
1R, 12, 19C and 19R
REIL Rwy 30
HIRL all Rwys

FAF to MAP 4.2 NM					
Knots	60	90	120	150	180
Min:Sec	4:12	2:48	2:06	1:41	1:24

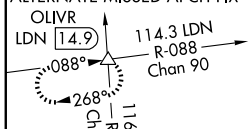
LOC/DME I-OIU 110.75 Chan 44 (Y)	APP CRS 011°	Rwy Idg TDZE Apt Elev	9400 296 312
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ILS RWY 1L (CAT II)

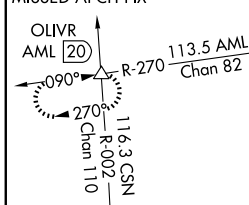
WASHINGTON DULLES INTL (IAD)

Simultaneous approach authorized with Rwy 1R or 1C.		ALSF-2	MISSED APPROACH: Climb to 800 then climbing left turn to 5000 via heading 240° and AML VORTAC R-270 to OLIVR INT/AML 20 DME and hold, continue climb-in-hold to 5000.	
ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)	GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)	CLNC DEL 135.7 317.8

ALTERNATE MISSED APCH FIX



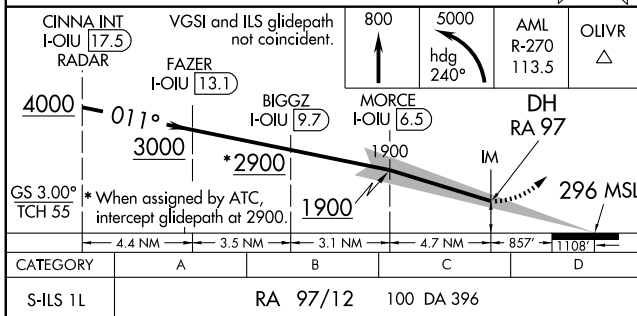
MISSED APCH FIX



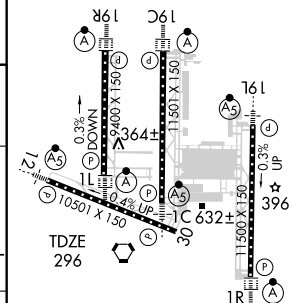
CASANOVA
116.3 CSN
Chan 110

4000
088°
(18.3)

DME or RADAR REQUIRED



ELEV 312



**CATEGORY II ILS - SPECIAL AIRCREW
& AIRCRAFT CERTIFICATION REQUIRED**

TDZ/CL Rwys 1C, 1L,
1R, 12, 19C and 19R
REIL Rwy 30
HIRL all Rwys

LOC/DME I-OIU 110.75 Chan 44 (Y)	APP CRS 011°	Rwy Idg TDZE Apt Elev	9400 296 312
--	------------------------	-----------------------------	---

ILS RWY 1L (CAT III)

WASHINGTON DULLES INTL (IAD)

Simultaneous approach authorized with Rwy 1R or 1C.

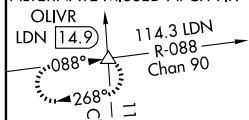
ALS-F-2



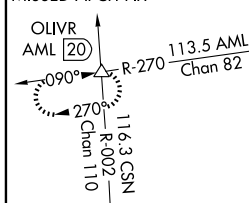
MISSED APPROACH: Climb to 800 then climbing left turn to 5000 via heading 240° and AML VORTAC R-270 to OLIVR INT/AML 20 DME and hold, continue climb-in-hold to 5000.

ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)	GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)	CLNC DEL 135.7 317.8
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ALTERNATE MISSED APCH FIX



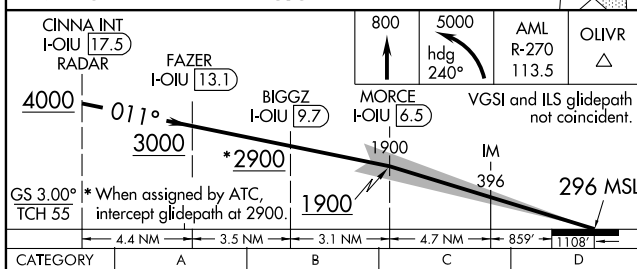
MISSED APCH FIX



CASANOVA
116.3 CSN
Chan 110

4000
088°
(18.3)

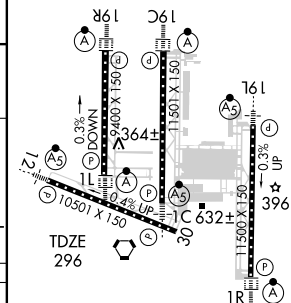
DME or RADAR REQUIRED



CATEGORY	A	B	C	D
S-ILS 1L		CAT IIIa	RVR 07	
S-ILS 1L		CAT IIIb	RVR 06	
S-ILS 1L		CAT IIIc	NA	

**CATEGORY III ILS - SPECIAL AIRCREW
& AIRCRAFT CERTIFICATION REQUIRED**

ELEV 312



TDZ/CL Rwys 1C, 1L,
1R, 12, 19C and 19R
REIL Rwy 30
HIRL all Rwys

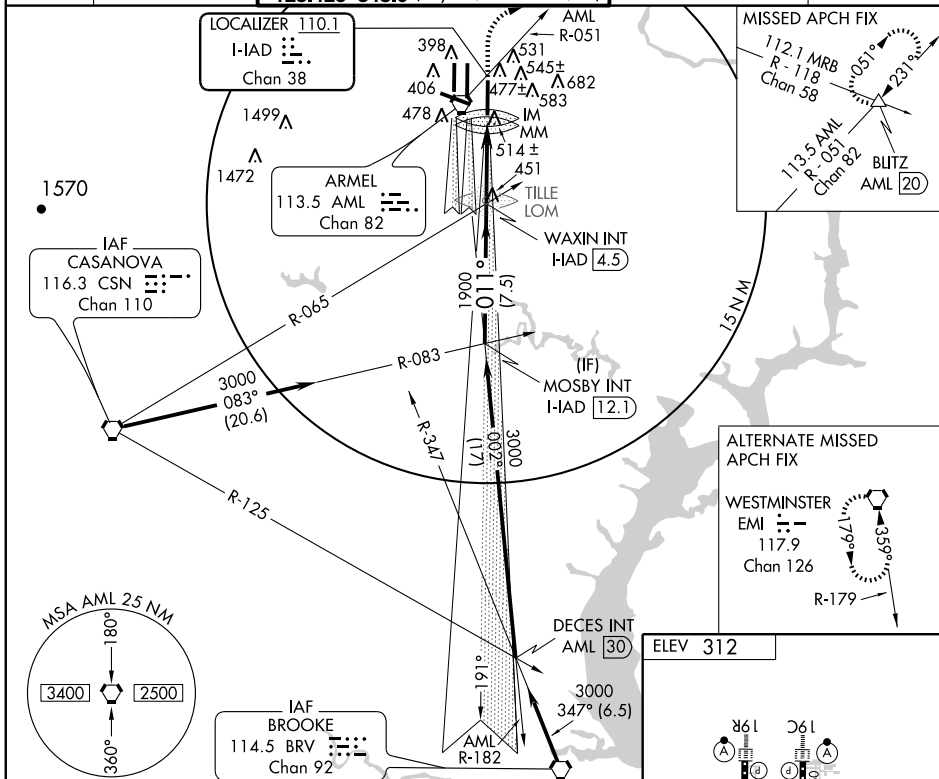
LOC/DME I-IAD	APP CRS	Rwy Idg	11500
110.1	011°	TDZE	312
Chan 38		Apt Elev	312

ILS RWY 1R (CAT II)

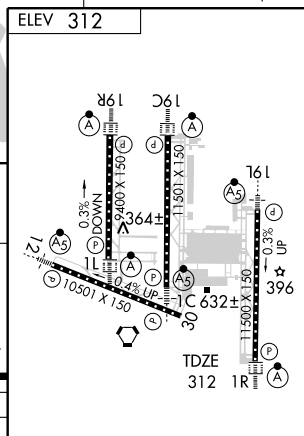
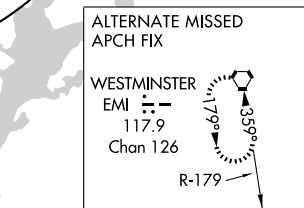
WASHINGTON DULLES INTL (IAD)

Simultaneous approach authorized with Rwy 1C or 1L.	ALSF-2 	MISSED APPROACH: Climb to 800 then climbing right turn to 3000 via heading 060° and AML VORTAC R-051 to BLITZ INT/AML 20 DME and hold.
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ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)	GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)	CLNC DEL 135.7 317.8
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Procedure Turn NA	MOSBY INT I-IAD 12.1	WAXIN INT I-IAD 4.5	3000	011°	1900	1900	312 MSL	7.5 NM	4.2 NM	2311'	910'	1050'
GS 3.00° TCH 53												
CATEGORY	A	B	C	D								
S-ILS 1R		RA 94/12	100	DA 412								



TDZ/CL Rwys 1C, 1L, 1R, 12, 19C and 19R
REIL Rwy 30
HIRL all Rwys

CATEGORY II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

LOC/DME I-AD <u>110.1</u> Chan 38	APP CRS 011°	Rwy Idg 11500 TDZE 312 Apt Elev 312
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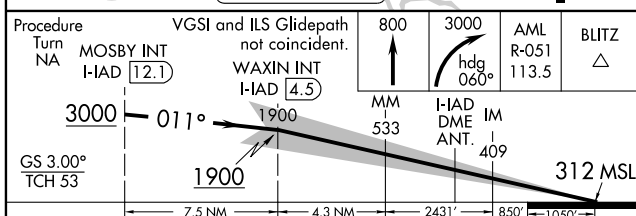
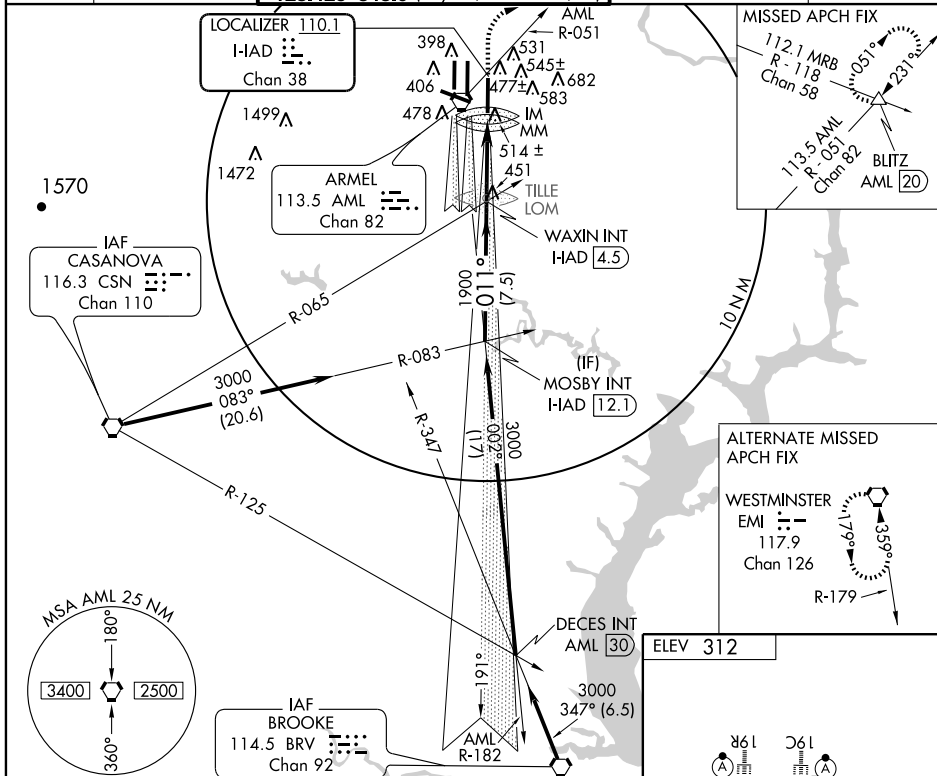
ILS RWY 1R (CAT III)
WASHINGTON DULLES INTL (IAD)

T	Simultaneous approach authorized with Rwy 1C or 1L.
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ALSF-2

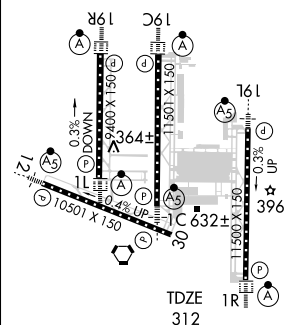
MISSED APPROACH: Climb to 800 then climbing right turn to 3000 via heading 060° and AML VORTAC R-051 to BLITZ INT/AML 20 DME and hold.

ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)	GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)	CLNC DEL 135.7 317.8
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CATEGORY	A	B	C	D
S-ILS 1R		CAT IIIa	RVR 07	
S-ILS 1R		CAT IIIb	RVR 06	
S-ILS 1R		CAT IIIc	NA	

CATEGORY III ILS - SPECIAL AIRCREW
& AIRCRAFT CERTIFICATION REQUIRED

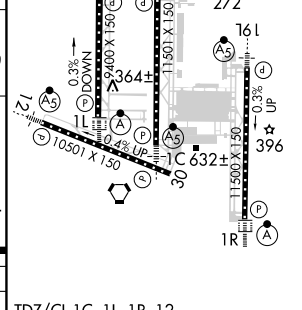
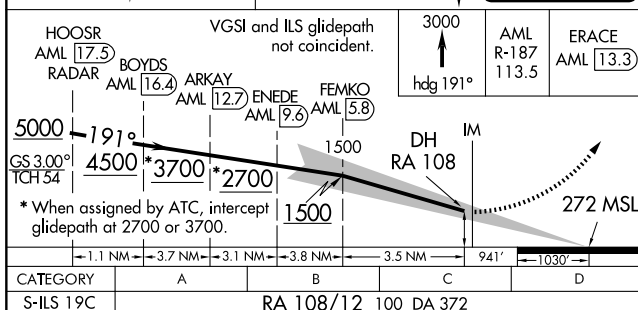
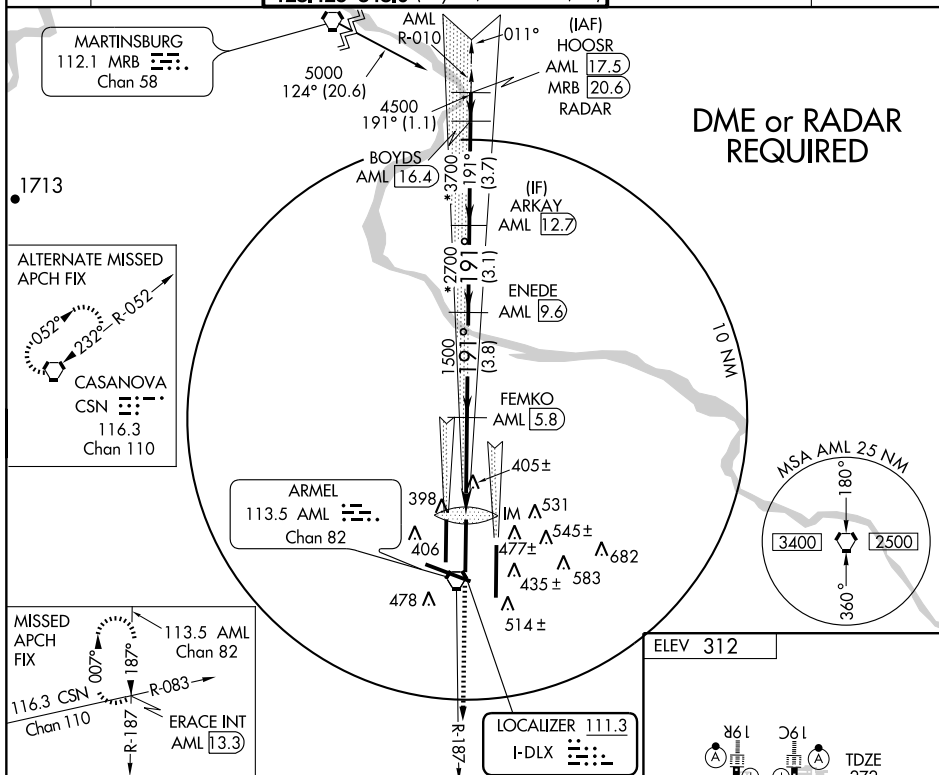


TDZ/CL Rwy 1C, 1L, 1R, 12,
19C and 19R
REIL Rwy 30
HRL all Rwy's

LOC I-DLX <u>111.3</u>	APP CRS 191°	Rwy Idg 11501 TDZE 272 Apt Elev 312
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ILS RWY 19C (CAT II)
WASHINGTON DULLES INTL (IAD)

DME from AML VORTAC. Simultaneous reception of I-DLX and AML DME required. Simultaneous approach authorized with Rwy 19L or 19R.		ALSF-2	MISSED APPROACH: Climb to 3000 via heading 191° and AML VORTAC R-187 to ERACE INT/AML 13.3 DME and hold.		
ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)		GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)	CLNC DEL 135.7 317.8



CATEGORY II ILS - SPECIAL AIRCREW
& AIRCRAFT CERTIFICATION REQUIRED

TDZ/CL 1C, 1L, 1R, 12,
19C and 19R
REIL Rwy 30
HIRL all Rwy's

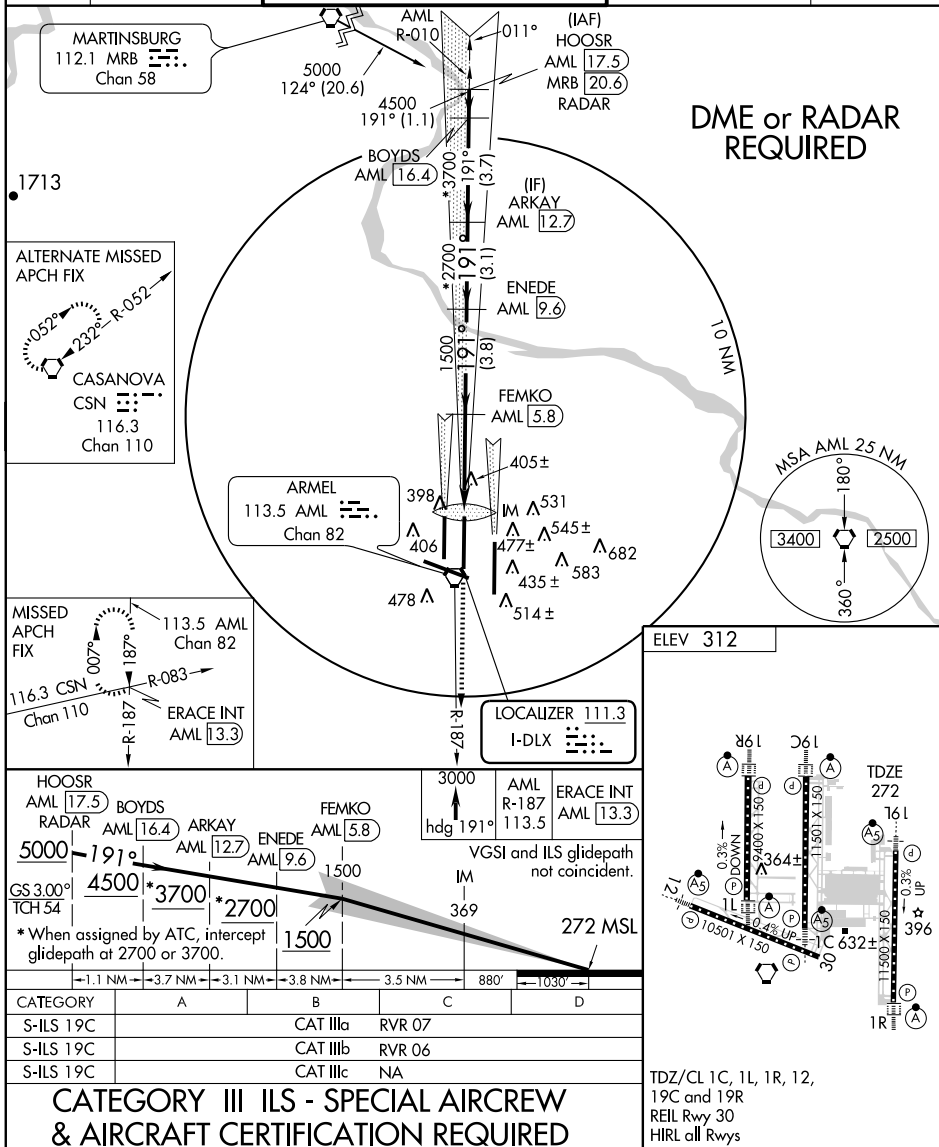
LOC I-DLX 111.3	APP CRS 191°	Rwy Idg 11501 TDZE 272 Apt Elev 312
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ILS RWY 19C (CAT III)

WASHINGTON DULLES INTL (IAD)

▼ DME from AML VORTAC. ▲ Simultaneous reception of I-DLX and AML DME required. Simultaneous approach authorized with Rwy 19L or 19R.	ALSF-2 	MISSED APPROACH: Climb to 3000 via heading 191° and AML VORTAC R-187 to ERACE INT/AML 13.3 DME and hold.
--	------------	--

ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)	GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)	CLNC DEL 135.7 317.8
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LOC/DME I-ISU 110.75 Chan 44 (Y)	APP CRS 191°	Rwy Idg 9400 TDZE 278 Apt Elev 312
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ILS RWY 19R (CAT II)
WASHINGTON DULLES INTL (IAD)

T
A Simultaneous approach authorized with Rwy 19C or 19L.

ALSF-2

MISSED APPROACH: Climb to 800 then climbing right turn to 5000 via AML VORTAC R-270 to OLIVR INT/AML 20 DME and hold, continue climb-in-hold to 5000.

ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)	GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)	CLNC DEL 135.7 317.8
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DME or RADAR
REQUIRED

1940

BEEZY INT
HSU **16**
RADAR

LAUGH
HSU **11.3**

CLAYY
HSU **7.2**

MULKY
HSU **4.1**

HSY DME ANT.

DH
IM RA 103

278 MSL

4000
3000
***2700**
1700

GS 3.00° TCH 55

*** When assigned by ATC, intercept glidepath at 2700.**

4.7 NM
4.1 NM
3.1 NM
4.1 NM
878'
1050'

CATEGORY	A	B	C	D
S-ILS 19R	RA 103/12 100 DA 378			

VGSI and ILS glidepath not coincident.

800
5000
AML
R-270
113.5

OLVR
△

CATEGORY II ILS - SPECIAL AIRCREW
& AIRCRAFT CERTIFICATION REQUIRED

TDZ/CL Rwy 1C, 1L,
1R, 12, 19C and 19R
REIL Rwy 30
HIRL all Rwys

LOC/DME I-ISU 110.75 Chan 44 (Y)	APP CRS 191°	Rwy Idg 9400 TDZE 278 Apt Elev 312
--	------------------------	---

ILS RWY 19R (CAT III)
WASHINGTON DULLES INTL (IAD)

T Simultaneous approach authorized with Rwy 19C or 19L.

ALSF-2

MISSED APPROACH: Climb to 800 then climbing right turn to 5000 via AML VORTAC R-270 to OLIVR INT/AML 20 DME and hold, continue climb-in-hold to 5000.

ATIS	POTOMAC APP CON
134.85	120.45 306.925

DULLES TOWER	
120.1	317.8 (Rwy 1R/19L)
120.25	348.6 (Rwy 1C/19C)
128.425	348.6 (Rwys 1L/19R and 12/30)

GND CON
121.9 317.8 (E
132.45 348.6 (V

CLNC DEL
135.7 317.8

ALTERNATE MISSED
APCH FIX

DME or RADAR
REQUIRED

1940

MARTINSBURG
112.1 MRB 
Chan 58

LOCALIZER 110.75
I-ISU 
Chan 44 (Y)

ARMEL
113.5 AML :==..
Chan 82

117.9 EMI
Chan 126
(IAF)
BEEZY INT
I-ISU 16
MRB 19.6
RADAR
R-123

(IF)
LAUGH
I-SU 11.3

CLAYY
I-ISU 7.2

MULRY
I-ISU 4.1

ELEV 312

BEEZY INT
I-ISU 16
RADAR

VGSI and ILS glidepath
not coincident.

800

5000

2	AM R-2
---	-----------

OLIVR	
-------	--

4000 3000 2700 1700 278 MSL

GS 3.00° TCH 55

I-SU (11.3) CLAYY I-SU (7.2) MULKY I-SU (4.1) I-SU DME ANTENNA IM 378

* When assigned by ATC, intercept glidepath at 2700.

CATEGORY	A	B	C	D
S-ILS 19R		CAT IIIa	RVR 07	
S-ILS 19R		CAT IIIb	RVR 06	
S-ILS 19R		CAT IIIc	NA	

CATEGORY III ILS - SPECIAL AIRCREW
& AIRCRAFT CERTIFICATION REQUIRED

TDZ/CL Rwys 1C, 1L,
1R, 12, 19C and 19R
REIL Rwy 30
HIRL all Rwys

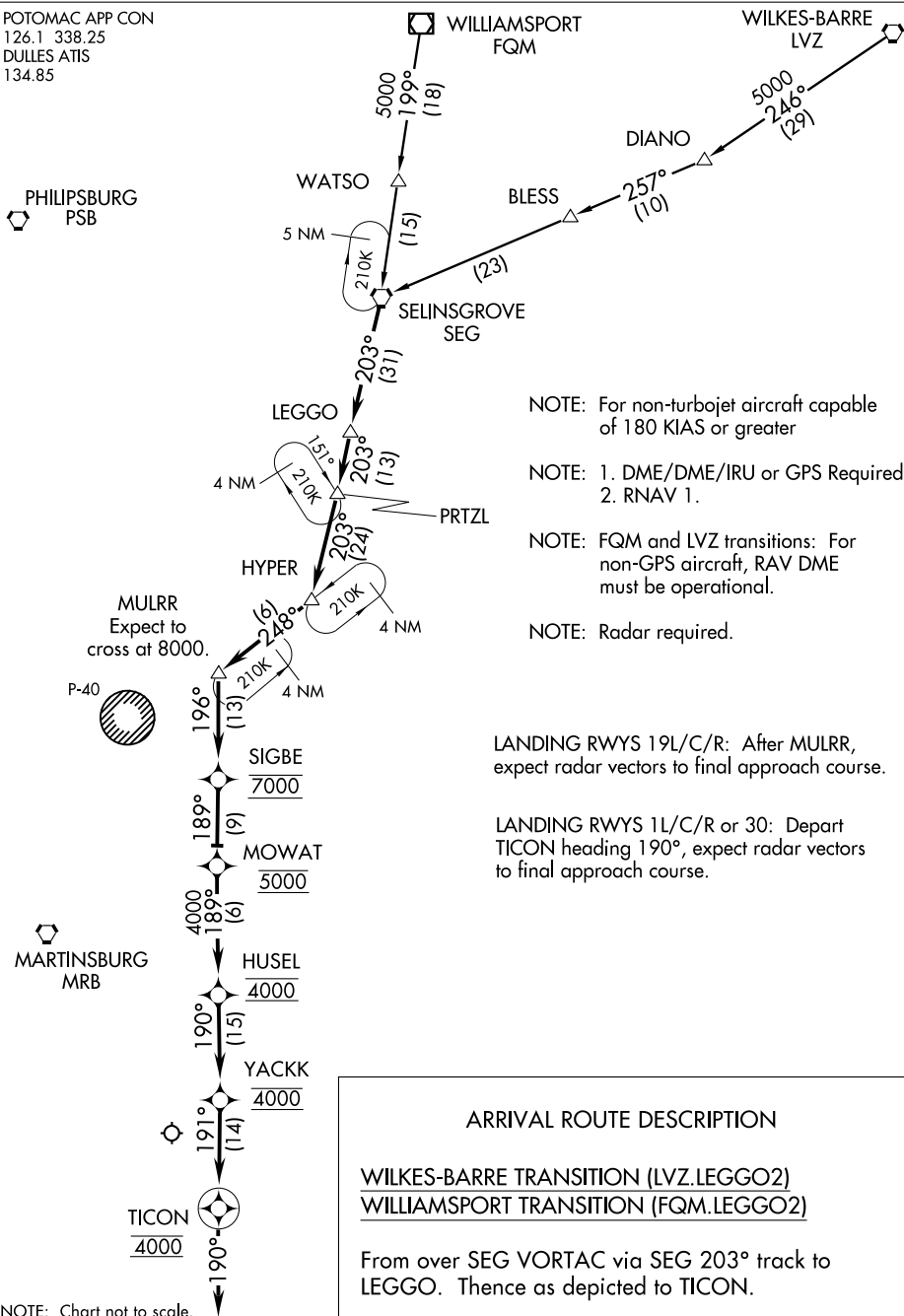
LEGGO TWO ARRIVAL (RNAV)

POTOMAC APP CON
126.1 338.25
DULLES ATIS
134.85

PHILIPSBURG
PSB

WILLIAMSPORT
FQM

WILKES-BARRE
LVZ



ARRIVAL ROUTE DESCRIPTION

WILKES-BARRE TRANSITION (LVZ.LEGGO2)

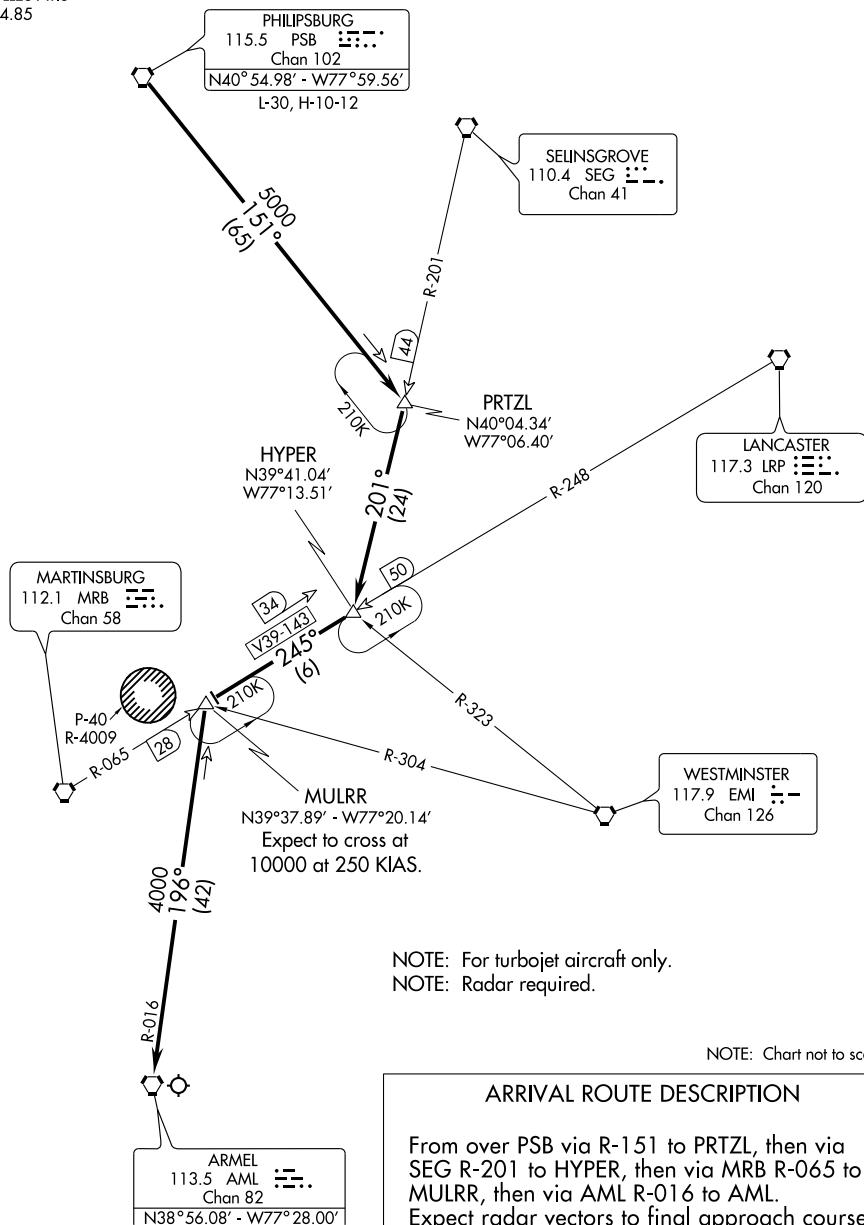
WILLIAMSPORT TRANSITION (FQM.LEGGO2)

From over SEG VORTAC via SEG 203° track to LEGGO. Thence as depicted to TICON.

NOTE: Chart not to scale.

PHILIPSBURG TWO ARRIVAL

POTOMAC APP CON
126.1 338.25
DULLES ATIS
134.85



ARRIVAL ROUTE DESCRIPTION

From over PSB via R-151 to PRTZL, then via SEG R-201 to HYPER, then via MRB R-065 to MULRR, then via AML R-016 to AML.
Expect radar vectors to final approach course.

PRTZL THREE ARRIVAL (RNAV)

POTOMAC APP CON
126.1 338.25
DULLES ATIS
134.85

PHILIPSBURG
PSB

NOTE: For turbojet aircraft only.

NOTE: 1. DME/DME/IRU or GPS Required.
2. RNAV 1.

NOTE: Radar required.

NOTE: For non-GPS equipped aircraft, EMI
and RAV DMEs must be operational.

MULRR
Expect to cross
at 10000 and 250 KIAS.

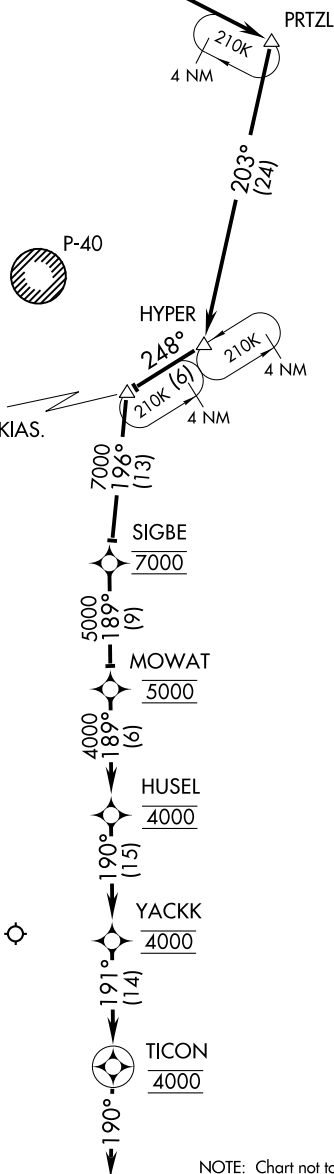
LANDING RWYS 19L/C/R: After MULRR, expect
radar vectors to final approach course.

MARTINSBURG
MRB

LANDING RWYS 1L/C/R and 30: Depart TICON
heading 190°, expect radar vectors to final
approach course.

ARRIVAL ROUTE DESCRIPTION

From over PSB via 151° track to PRTZL,
thence as depicted to TICON. Depart
TICON heading 190°. Expect radar vectors
to final approach course.



NOTE: Chart not to scale.

WAAS CH 99309 W01D	APP CRS 011°	Rwy Idg 9400 TDZE 296 Apt Elev 312
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RNAV (GPS) RWY 1L

WASHINGTON DULLES INTL (IAD)

T For inoperative ALSF-2, increase LNAV Cat D visibility to RVR 6000. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA.

ALSF-2

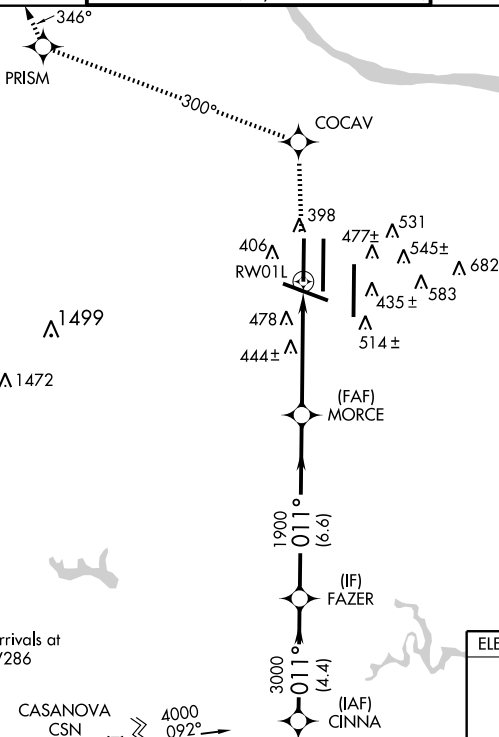
MISSED APPROACH: Climb to 4000 direct COCAV and via 300° track to PRISM and via 346° track to MRB VORTAC and hold.

ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)	GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)	CLNC DEL 135.7 317.8
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MISSED APCH FIX

MARTINSBURG
MRB

4 NM



Procedure NA for arrivals at
CSN VORTAC via V286
northwest bound.

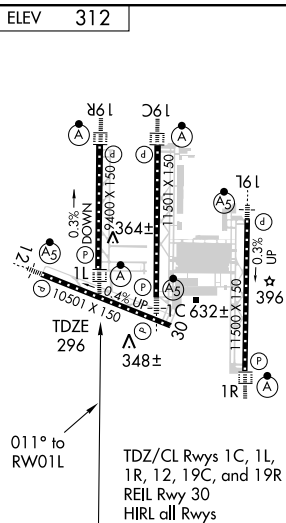
CASANOVA

VSGI and RNAV glidepath not coincident.

ZER

Procedure

Turn NA



CATEGORY	A	B	C	D
LPV DA	496/24		200 (200-½)	
LNNAV/ VNAV DA	828/60		532 (600- 1¼)	
LNNAV MDA	720/24 424 (500-½)		720/40 424 (500-1)	720/50 424 (500-1)
CIRCLING	940-1 628 (700-1)		940-1¾ 628 (700-1¾)	940-2 628 (700-2)

011° to

TDZ/CL Rwy 1C, 1L,
1R, 12, 19C, and 19R
REIL Rwy 30
HIRL all Rwys

WAAS CH 86310 W12A	APP CRS 121°	Rwy Idg TDZE Apt Elev	10501 310 312
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RNAV (GPS) RWY 12

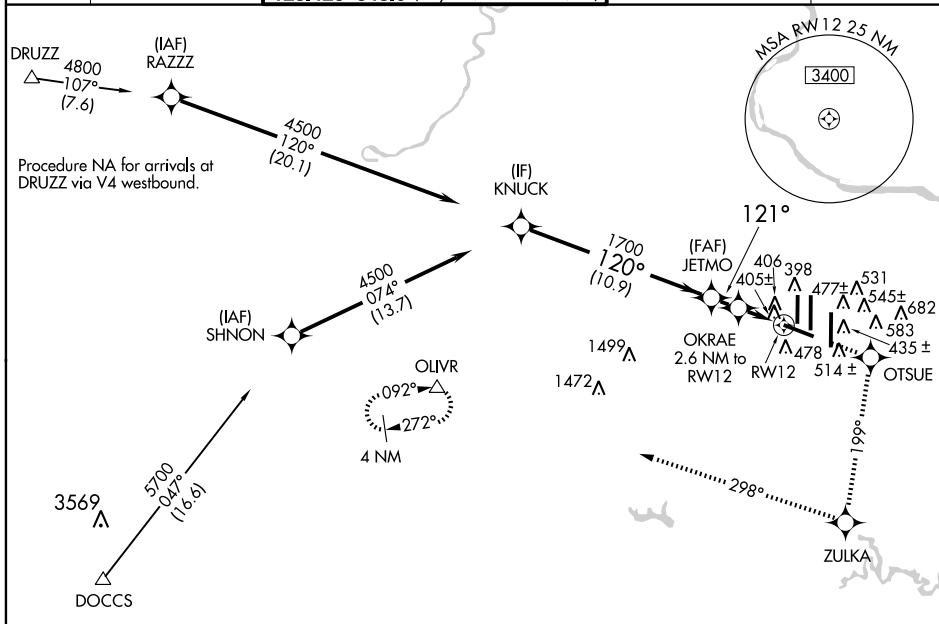
WASHINGTON DULLES INTL (IAD)

For inoperative MALSR, increase LNAV Cat D visibility to RVR 6000.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA.

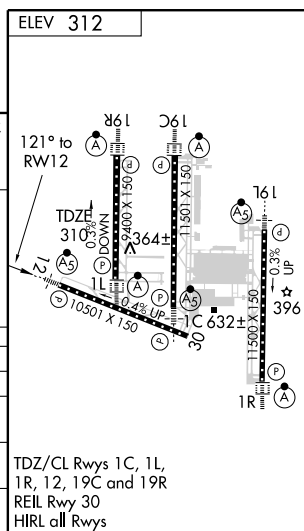
MALSR
A5

MISSED APPROACH: Climb to 4000 direct OTSUE and via 199° track to ZULKA and right turn via 298° track to OLIVR and hold.

ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)	GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)	CLNC DEL 135.7 317.8
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KNUCK		4000	OTSUE	trk 199°	ZULKA	OLIVR
4500						
Procedure Turn NA						
GS 3.00°						
TCH 49						
VGSi and RNAV glidepath not coincident.						
10.9 NM		1.6 NM	1.7 NM	0.9		
CATEGORY	A	B	C	D		
LPV DA		510/24	200 (200-½)			
LNAV/VNAV DA		729/50	419 (500-1)			
LNAV MDA		660/24	350 (400-½)		660/50 350 (400-1)	
CIRCLING	940-1	628 (700-1)	940-1 ¾ 628 (700-1 ¾)	940-2 628 (700-2)		

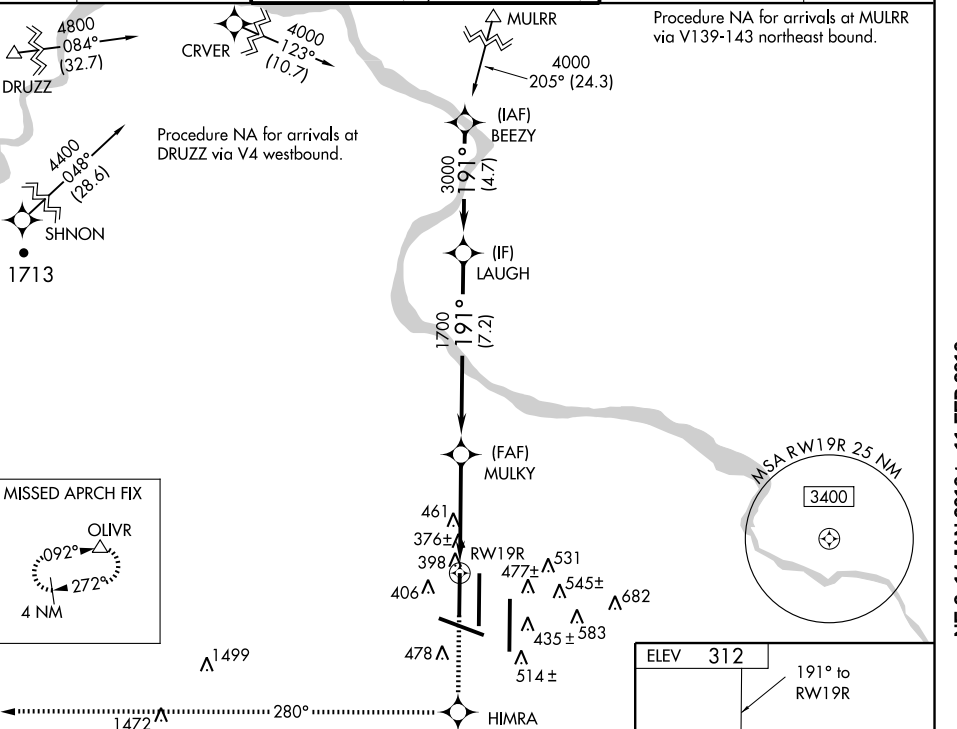


For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP -0.3 NA.

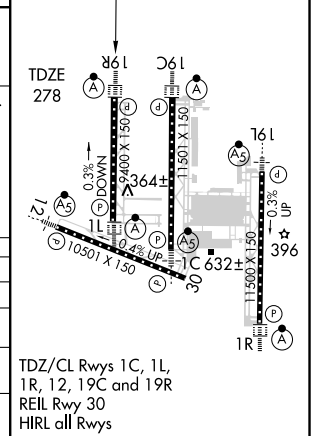
ALSF-2

MISSED APPROACH: Climb to 5000 direct HIMRA and via 280° track to OLIVR and hold, continue climb-in-hold TO 5000.

ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwy 1L/19R and 12/30)	GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)	CLNC DEL 135.7 317.8
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VGSi and RNAV glidepath not coincident.				
LAUGH				
3000				
Procedure Turn NA				
GS 3.00°				
TCH 55				
7.2 NM				
3.1 NM				
1.2 NM				
*1.2 NM to RWY 19R				
*LNAV only.				
CATEGORY	A	B	C	D
LPV DA	478/24		200 (200-½)	
LNAV/VNAV DA	714/50		436 (500-1)	
LNAV MDA	720/24	442 (500-½)	720/40	720/50
			442 (500-¾)	442 (500-1)
CIRCLING	940-1	628 (700-1)	940-1½	940-2
			628 (700-¾)	628 (700-2)



WAAS CH 97509 W01B	APP CRS 011°	Rwy Idg TDZE Apt Elev	11501 286 312
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RNAV (GPS) Y RWY 1C

WASHINGTON DULLES INTL (IAD)

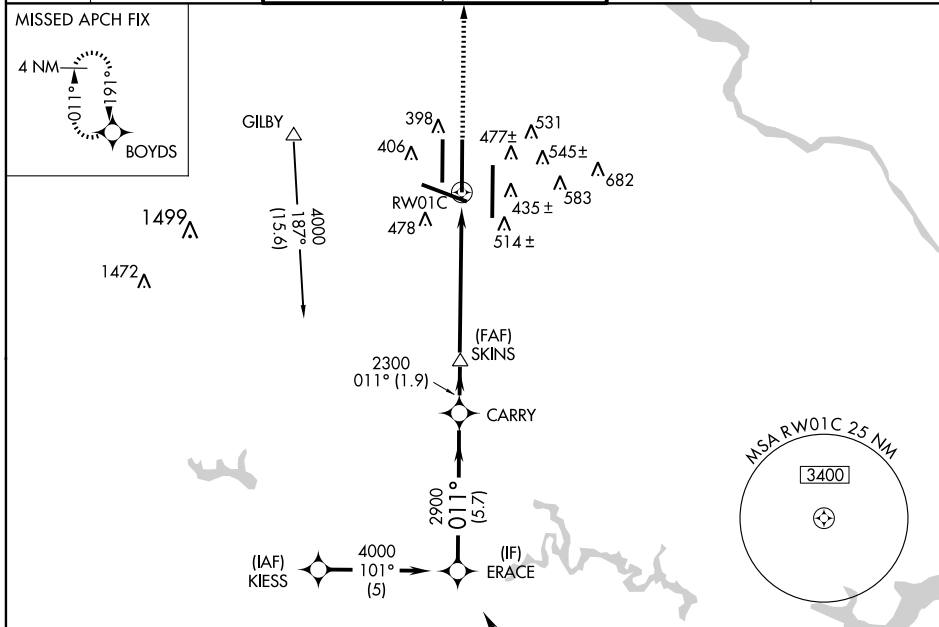
For uncompensated Baro-VNAV systems, LNAV/VNAV NA
below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA.

MALSR

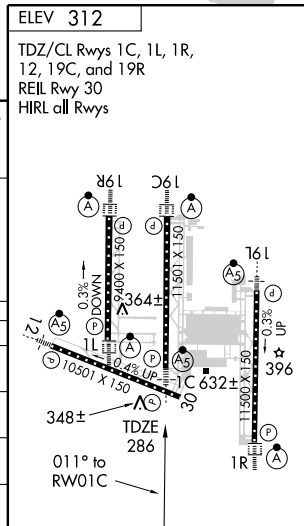


MISSED APPROACH: Climb to 3000
direct BOYDS and hold.

ATIS	POTOMAC APP CON	DULLES TOWER	GND CON	CLNC DEL
134.85	120.45 306.925	120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)	121.9 317.8 (EAST) 132.45 348.6 (WEST)	135.7 317.8



ERACE				
4000				
Procedure Turn NA				
GS 3.00° TCH 54				
5.7 NM				
1.9 NM				
4.4 NM				
1.7 NM				
CATEGORY	A	B	C	D
LPV DA	486/24 200 (200-½)			
LNAV/VNAV DA	785/60 499 (500-1¼)			
LNAV MDA	900/24 614 (600-½)	900/60 614 (600-1¼)	900-1½ 614 (600-1½)	900-1½ 614 (600-1½)
CIRCLING	940-1 628 (700-1)	940-1¾ 628 (700-1¾)	940-2 628 (700-2)	940-2 628 (700-2)



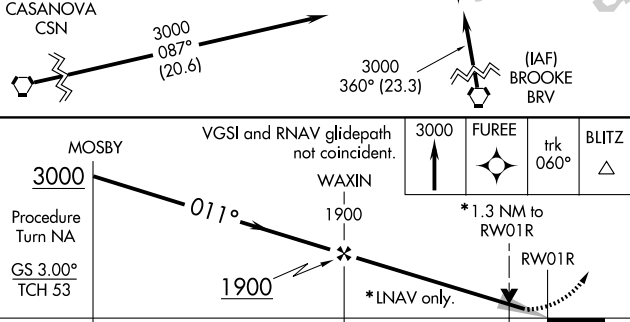
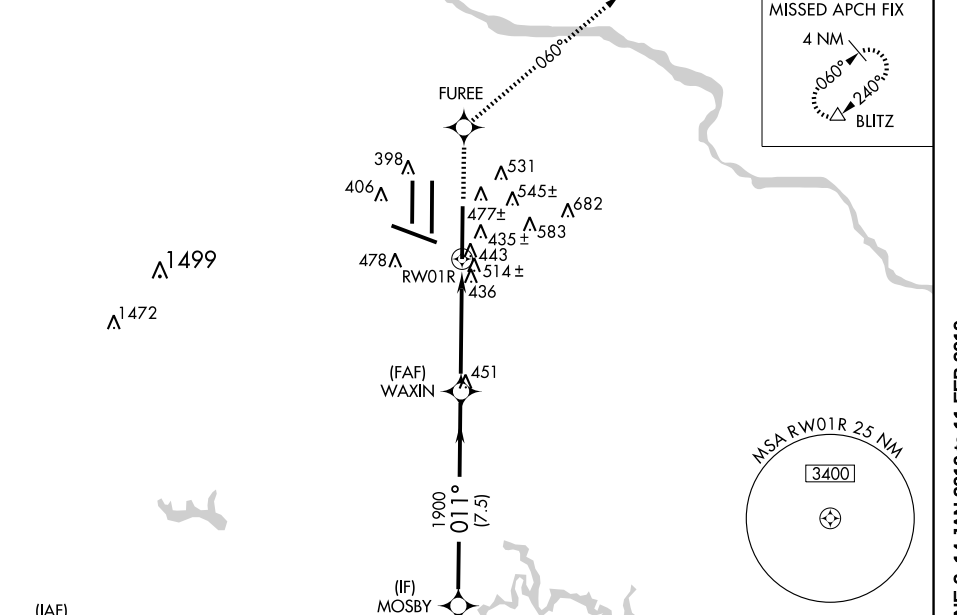
▼

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA.

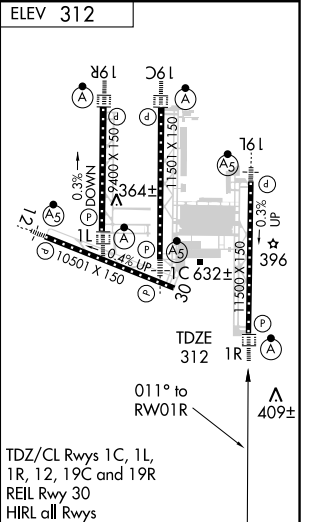
ALSF-2

MISSED APPROACH: Climb to 3000 direct FUREE and via 060° track to BLITZ and hold.

ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)	GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)	CLNC DEL 135.7 317.8
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CATEGORY	A	B	C	D
LPV DA	512/24 200 (200-½)			
LNAV/VNAV DA	739/50 427 (500-1)			
LNAV MDA	800/24 488 (500-½)		800/40 488 (500-¾)	800/50 488 (500-1)
CIRCLING	940-1 628 (700-1)		940-1¾ 628 (700-1¾)	940-2 628 (700-2)



AL-5100 (FAA)

WAAS CH 40305 W19B	APP CRS 191°	Rwy Idg 11501 TDZE 272 Apt Elev 312
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RNAV (GPS) Y RWY 19C

WASHINGTON DULLES INTL (IAD)

T For inoperative ALSF-2, increase LNAV Cat D visibility to RVR 6000. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 47°C (116°F). DME/DME RNP-0.3 NA.

ALSF-2



MISSED APPROACH: Climb to 4000
direct BOPAC and via 242° track to
CSN VORTAC and hold.

ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)	GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)	CLNC DEL 135.7 317.8
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Procedure NA for arrivals
at DRUZZ via V4 west bound.

4800
084°
132.7

DRUZZ

MISSED APCH FIX

4000	BOPAC	trk 242°	CSN
			

VGSI and RNAV glidepath
not coincident.

BOYDS

4000

Procedure
Turn NA
GS 3.00°
TCH 54

FEMKO

1500

CATEGORY		A	B	C	D
LPV	DA	472/24 200 (200-½)			
LNAV/ VNAV	DA	717/50 445 (500-1)			
LNAV	MDA	680/24 408 (400-½)	680/40 408 (400-¾)		680/50 408 (400-1)
CIRCLING		940-1 628 (700-1)	940-1½ 628 (700-¾)		940-2 628 (700-2)

Procedure NA for arrivals at MULRR
via V139-143 northeast bound.

MSA RW19C 25 NM

3400

ELEV 312

191° to
RW19C —

TDZ/CL Rwy 1C, 1L,
1R, 12, 19C and 19R
REIL Rwy 30
HIRL all Rwys

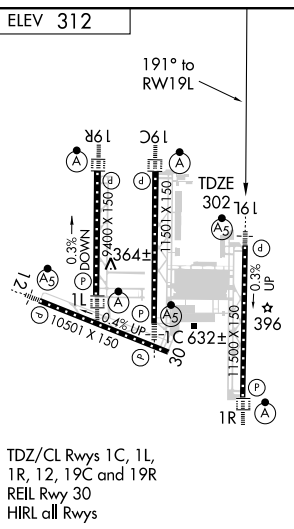
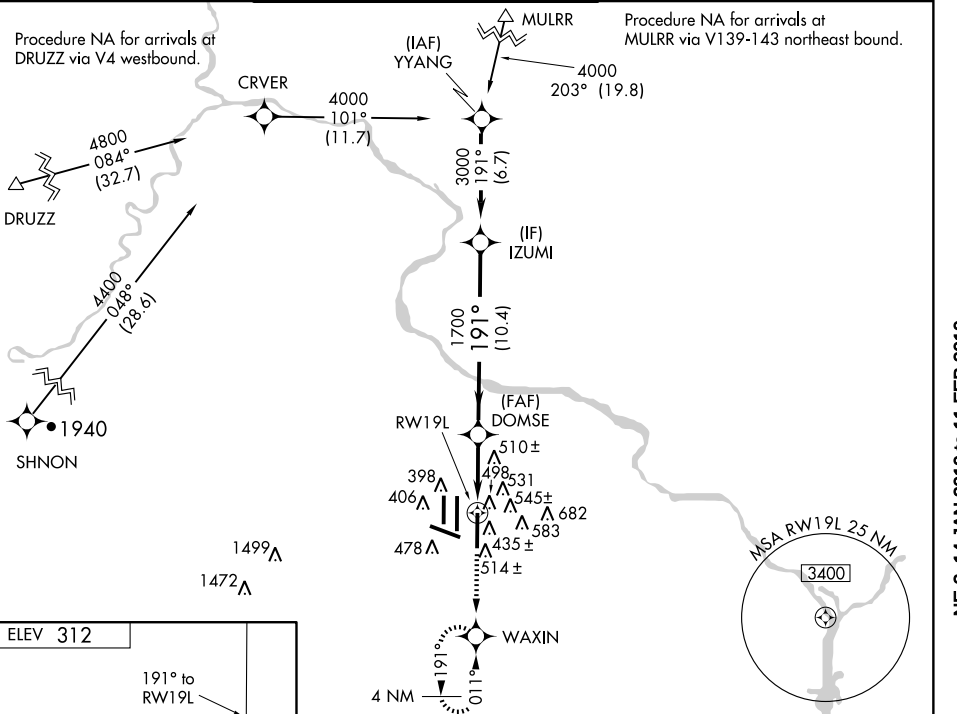
▼

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA.

MALSR

MISSED APPROACH: Climb to 2000 direct WAXIN and hold.

ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)	GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)	CLNC DEL 135.7 317.8
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2000	WAXIN	VGSJ and RNAV glidepath not coincident.			IZUMI
					3000
		* 1.4 NM to RWY 19L			Procedure Turn NA
		* LNAV only.			GS 3.00°
		1.4 2.8 NM 10.4 NM			TCH 55
CATEGORY	A	B	C	D	
LPV DA	502/24 200 (200-½)				
LNAV/VNAV DA	829/60 527 (600-1¼)				
LNAV MDA	820/24 518 (600-½)		820/50 518 (600-1)	820/60 518 (600-1¼)	
CIRCLING	940-1 628 (700-1)		940-1¾ 628 (700-1¾)	940-2 628 (700-2)	

NE-3, 14 JAN 2010 to 11 FEB 2010

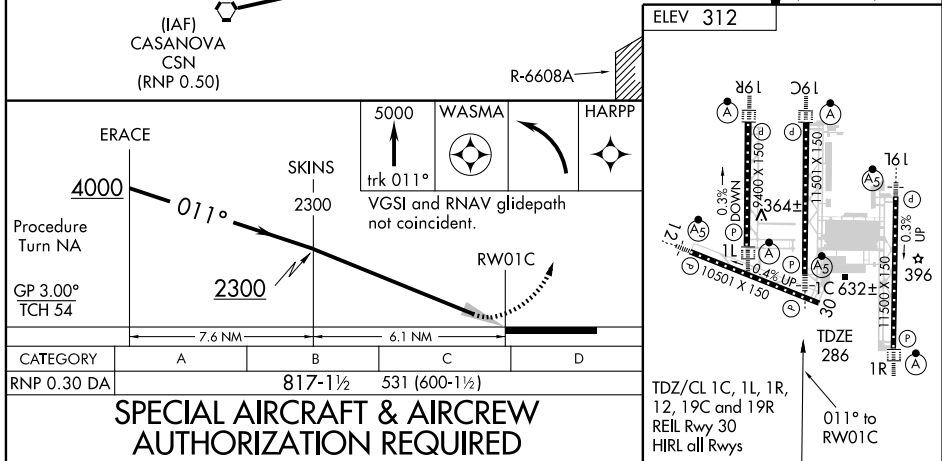
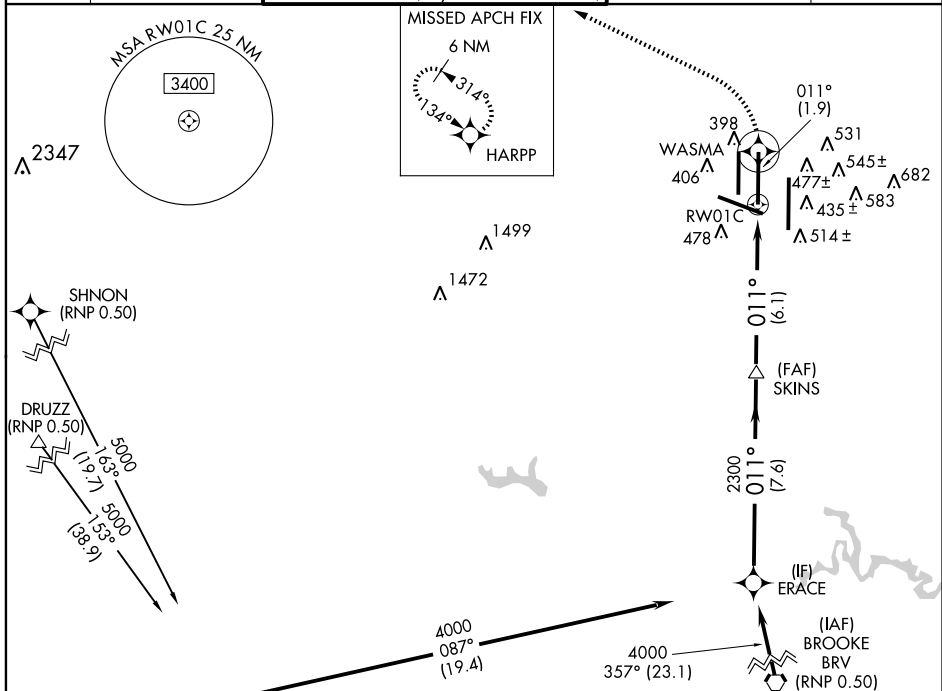
APP CRS	Rwy Idg	11501
011°	TDZE	286
	Apt Elev	312

RNAV (RNP) Z RWY 1C

WASHINGTON DULLES INTL (IAD)

T GPS required. For uncompensated Baro-VNAV systems, procedure NA below -14°C (6°F) or above 48°C (119°F). For inoperative ALSF-2, increase RNP 0.30 visibility to 1¾.	MALSR 	MISSED APPROACH: Climb to 5000 via track 011° to WASMA and left turn direct HARPP and hold.
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ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)	GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)	CLNC DEL 135.7 317.8
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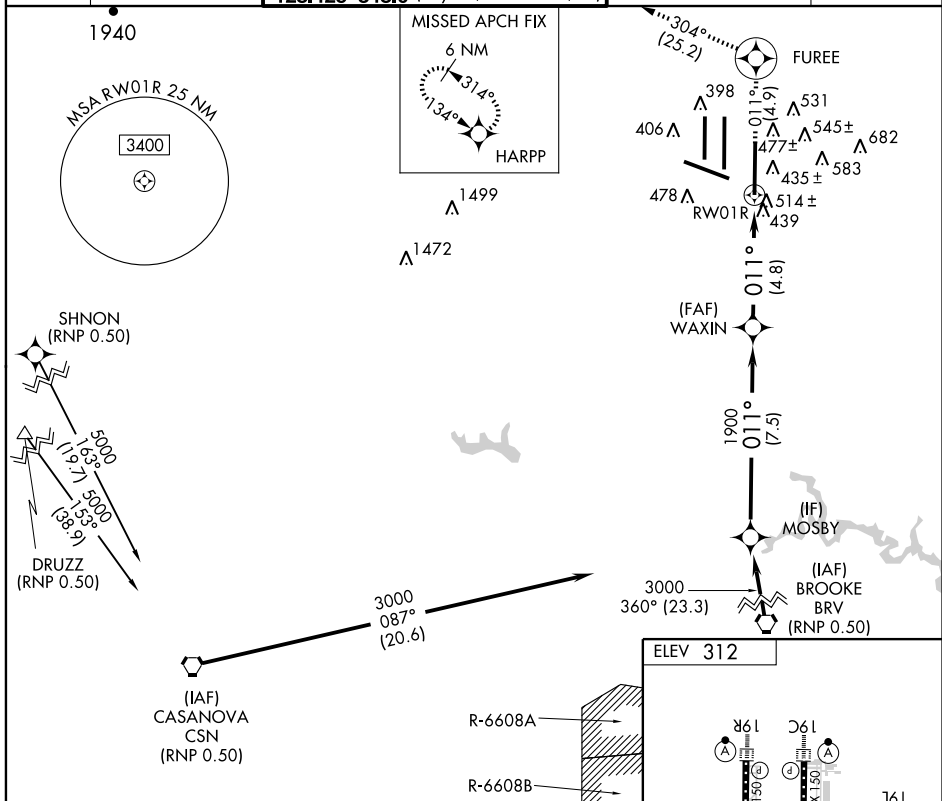


APP CRS 011°	Rwy Idg 11500
TDZE 312	
Apt Elev 312	

RNAV (RNP) Z RWY 1R

WASHINGTON DULLES INTL (IAD)

 GPS required. For uncompensated Baro-VNAV systems, procedure NA below -14°C (6°F) or above 48°C (118°F). For inoperative ALSF-2, increase RNP 0.30 visibility to 1½.		ALSF-2 		MISSED APPROACH: Climb to 5000 via track 011° to FUREE and left turn direct HARPP and hold.		
ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)		GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)		CLNC DEL 135.7 317.8



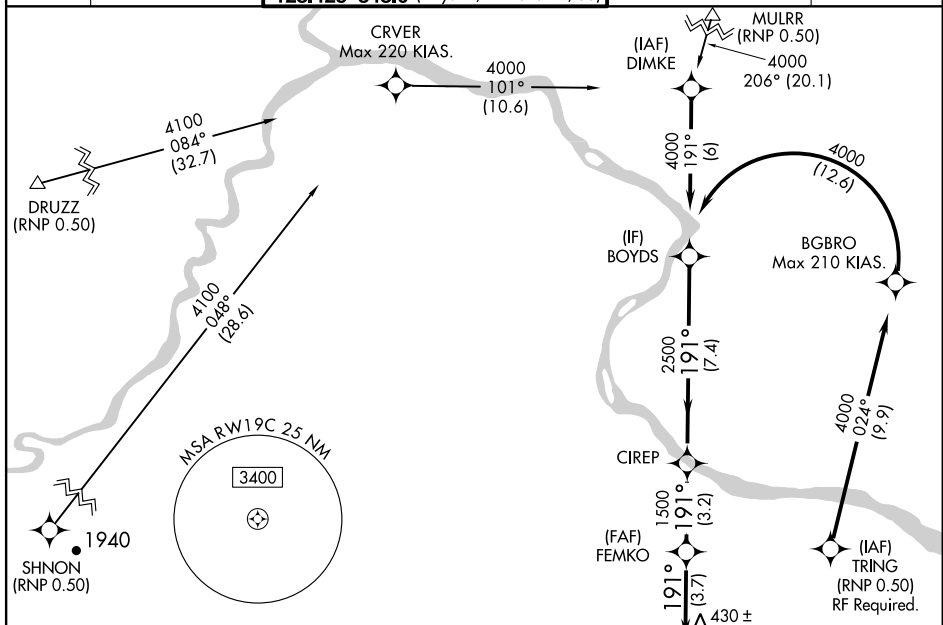
MOSBY	3000	011°	1900	WAXIN	1900	RW01R
Procedure	Turn NA					
GP 3.00°	TCH 53					
CATEGORY	A	B	C	D		
RNP 0.30 DA	767/50	455 (500-1)				
SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED						
TDZ/CL 1C, 1L, 1R, 12, 19C and 19R REIL Rwy 30 HIRL all Rwys						

RNAV (RNP) Z RWY 19C
WASHINGTON DULLES INTL (IAD)

WASHINGTON DULLES INTL (IAD)

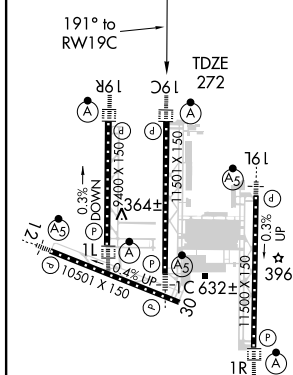
MISSED APPROACH: Climb to 4000 via track 191° to BOPAC and via track 265° to BLUES and hold.

CLNC DEL
135.7 317.8

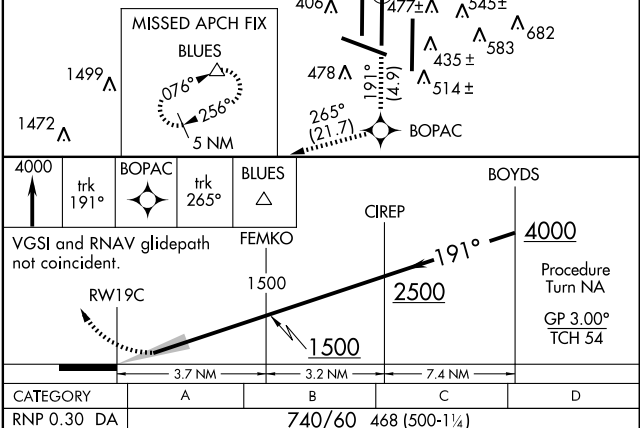


NE-3. 14 JAN 2010 to 11 FEB 2010

ELEV 312



TDZ/CL 1C, 1L, 1R, 12,
19C and 19R
REIL Rwy 30
HIRL all Rwys

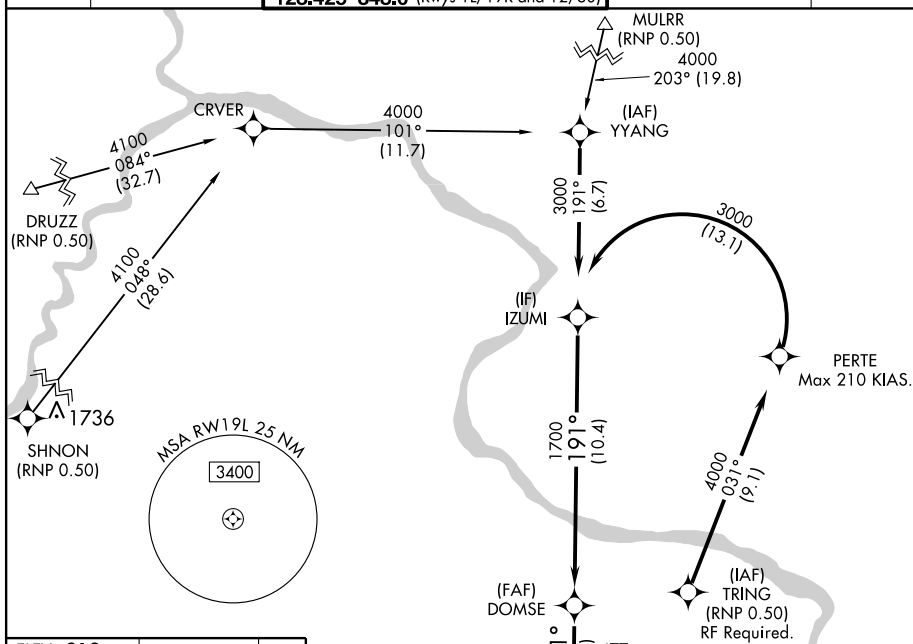


SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED

RNAV (RNP) Z RWY 19L
WASHINGTON DULLES INTL (IAD)

MISSED APPROACH: Climb to 2000 via track 191° to WAXIN and hold.

CLNC DEL
135.7 317.8

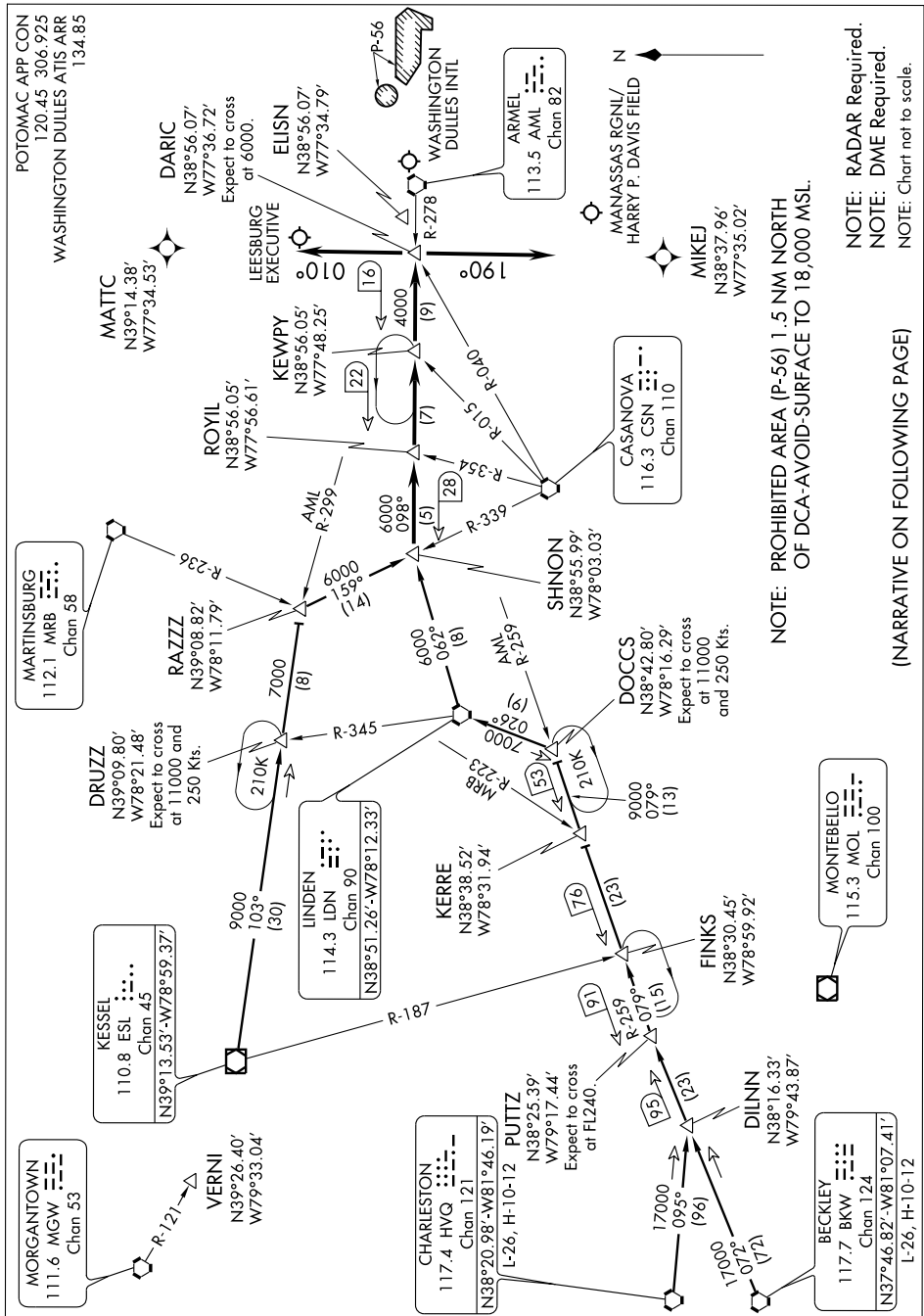


NE-3. 14 JAN 2010 to 11 FEB 2010

[illegible]

ROYIL TWO ARRIVAL

WASHINGTON, DC



ARRIVAL ROUTE DESCRIPTION

BECKLEY TRANSITION (BKW.ROYIL2): From over BKW VORTAC via BKW R-072 to PUTTZ INT, then via AML R-259 to DOCCS INT, then via LDN R-206 to LDN VORTAC, then via LDN R-062 to SHNON INT, thence

CHARLESTON TRANSITION (HVQ.ROYIL2): From over HVQ VORTAC via HVQ R-095 to DILNN INT, then via BKW R-072 to PUTTZ INT, then via AML R-259 to DOCCS INT, then via LDN R-206 to LDN VORTAC, then via LDN R-062 to SHNON INT, thence

KESSEL TRANSITION (ESL.ROYIL2): From over ESL VOR/DME via ESL R-103 to RAZZZ INT, then via CSN R-339 to SHNON INT, thence

. . . . from over SHNON INT via AML R-278 to ROYIL INT, then via AML R-278 to KEWPY INT, then via AML R-278 to DARIC INT.

LANDING SOUTH (IAD ONLY): Depart DARIC heading 010° for vectors to final approach course.

LANDING NORTH (IAD ONLY): Depart DARIC heading 190° for vectors to final approach course.

SELINGSGROVE THREE ARRIVAL

POTOMAC APP CON
126.1 338.25
DULLES ATIS
134.85

WILLIAMSPORT
114.4 FQM 
Chan 91
N41°20.31' - W76°46.49'
L-30, H-10-12

MILTON
109.2 MIP 
Chan 29

DIANO
N41°00.03' - W76°13.56'

PHILIPSBURG
115.5 PSB 
Chan 102

WATSO
N41°02.77' - W76°50.00'

WILKES-BARRE
111.6 LVZ 
Chan 53
N41°16.37' - W75°41.37'
L-33, H-10-12

SELINGSGROVE
110.4 SEG 
Chan 41
N40°47.45' - W76°53.04'

LEGGO
N40°17.27' - W77°02.43'

HYPER
N39°41.04' - W77°13.51'

LANCASTER
117.3 LRP 
Chan 120

MARTINSBURG
112.1 MRB 
Chan 58

NOTE: For non-turbojet aircraft capable
of 180 KIAS or greater.

NOTE: Radar required.

WESTMINSTER
117.9 EMI 
Chan 126

MULRR
N39°37.89' - W77°20.14'
Expect to cross at 8000
and 250 KIAS.

NOTE: Chart not to scale.

WILKES-BARRE TRANSITION (LVZ.SEG3):

From over LVZ VORTAC via LVZ R-246 and
SEG R-075 to SEG VORTAC. Thence....

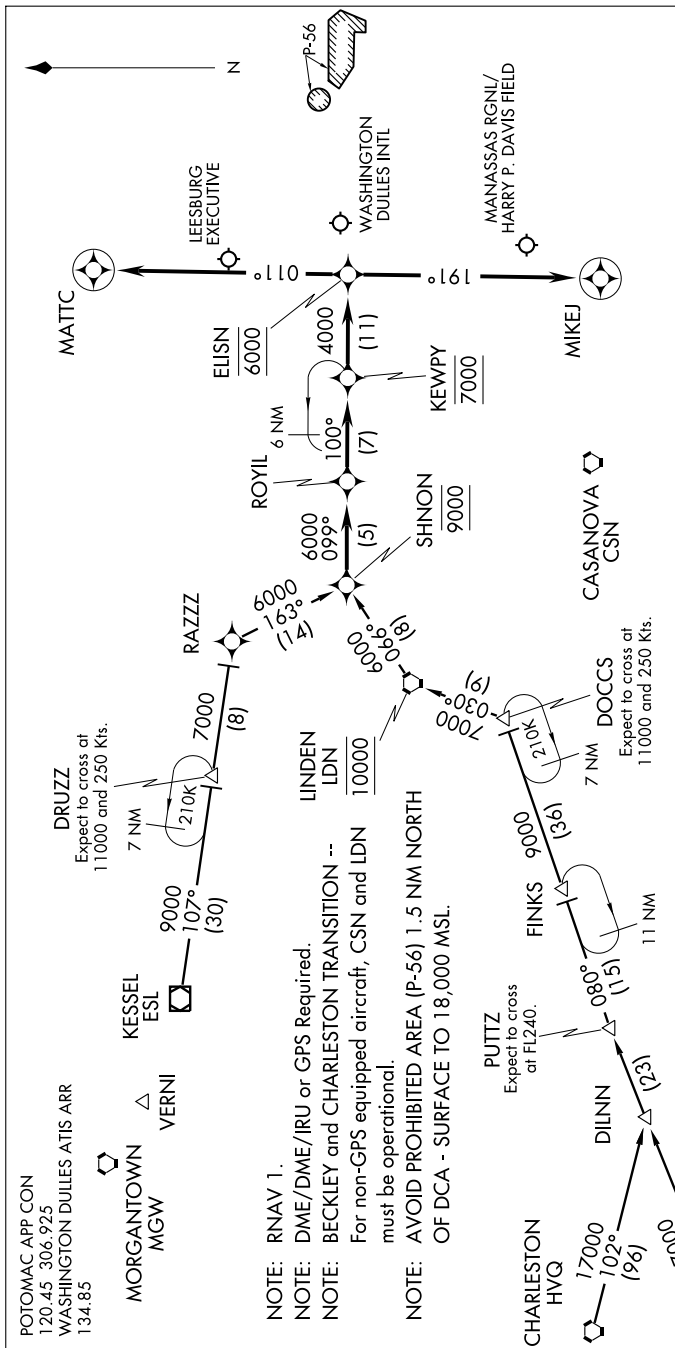
WILLIAMSPORT TRANSITION (FQM.SEG3):

From over FQM VOR/DME via FQM R-198 and
SEG R-017 to SEG VORTAC. Thence....

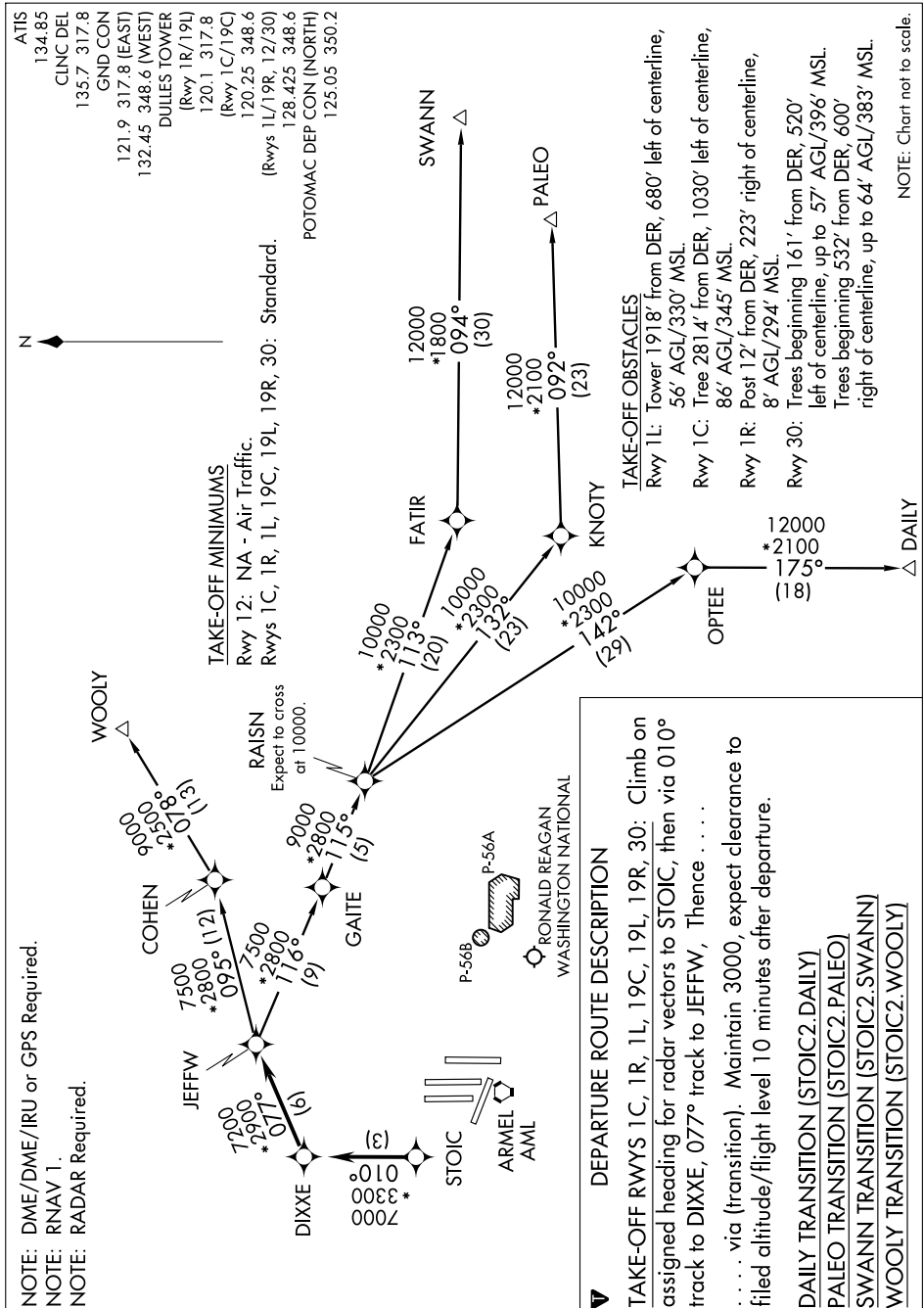
....From over SEG via SEG R-201 to LEGGO, then via
SEG R-201 to PRTZL, then via SEG R-201 to HYPER,
then via MRB R-065 to MULRR, then via AML R-016
to AML. Expect radar vectors to final approach course.

SHNON TWO ARRIVAL (RNAV)

WASHINGTON, DC



STOIC TWO DEPARTURE (RNAV)



VORTAC AML 113.5 Chan 82	APP CRS 120°	Rwy Idg TDZE Apt Elev 10501 310 312
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VOR/DME or TACAN RWY 12

WASHINGTON DULLES INTL (IAD)



For inoperative MALS, increase S-12 Cat D visibility to 1¼ mile.

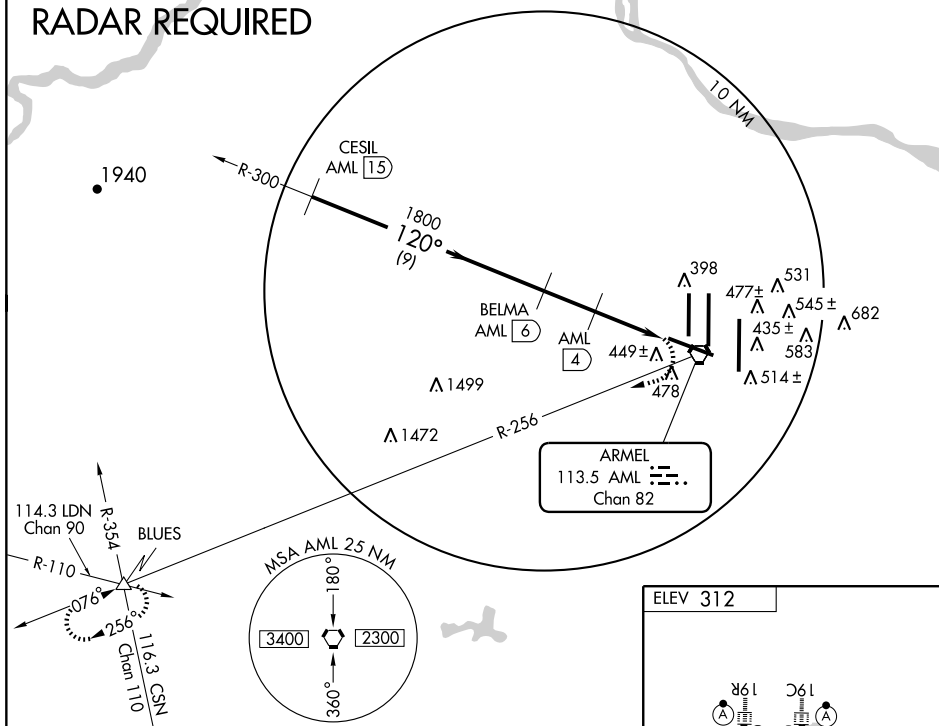
MALS



MISSED APPROACH: Climbing right turn to 4000 via AML R-256 to BLUES INT and hold.

ATIS 134.85	POTOMAC APP CON 120.45 306.925	DULLES TOWER 120.1 317.8 (Rwy 1R/19L) 120.25 348.6 (Rwy 1C/19C) 128.425 348.6 (Rwys 1L/19R and 12/30)	GND CON 121.9 317.8 (EAST) 132.45 348.6 (WEST)	CLNC DEL 135.7 317.8
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RADAR REQUIRED



	CESIL AML 15	BELMA AML 6	4000	AML 4	AML 2.3	AML 1.2	VORTAC
	4000	1800	1200				
	9 NM	2 NM	1.7 NM	1.1			
CATEGORY	A	B	C	D			
S-12	700/24 390 (400-½)			700/50 390 (400-1)			
CIRCLING	820-1 508 (600-1)		840-1½ 528 (600-1½)	880-2 568 (600-2)			

